

BROOME COMMUNITY COLLEGE

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# CATALOG

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1988-89



## ACCREDITATION

Broome Community College is a member of the Middle States Association of Colleges and Schools.

The College is supervised by the State University of New York and its curriculums are registered by the State Education Department.

The Civil, Chemical, Electrical and Mechanical Engineering Technology programs are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc., (TAC/ABET).

The Dental Hygiene Program is accredited by the Commission on Dental Accreditation and by the United States Department of Education, and the Nursing Curriculum is accredited by the National League for Nursing.

The Committee on Allied Health Education and Accreditation (CAHEA) of the American Medical Association (AMA) has accredited four other curriculums-Radiologic Technology, Medical Record Technology, Medical Laboratory Technology, and Medical Assistant, which is also accredited by the American Association of Medical Assistants.

The Medical Record Technology program has double accreditation, too, having been approved by the American Medical Record Association as well as by AMA. The Medical Laboratory Technology curriculum also has approval by the National Accrediting Agency for Clinical Laboratory Science (NAACLS) in conjunction with AMA. The Dietary program is approved by the Dietary Managers Association.

## NON-DISCRIMINATION COMMITMENT

Broome Community College does not discriminate on the basis of race, sex, color, creed, age, national origin, disability, marital status, or status as a disabled veteran or veteran of the Vietnam era in the recruitment of students, the recruitment and employment of faculty and staff, or the operation of any of its programs and activities, as specified by Federal and State Laws and regulations.

The designated coordinator for compliance with Title VI and VII of the Civil Rights Act of 1964, as amended, Title IX of Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, as amended, and Section 402 of the Vietnam Era Veteran's Readjustments Assistance Act of 1974, as amended, is the Affirmative Action/Equal Opportunity Officer.

For further information or questions, contact this individual weekdays, during regular college hours.

## THE COLLEGE PHONE NUMBER IS (607) 771-5000.

The College reserves the right at any time to make changes deemed advisable or necessary. The College, moreover, shall not be responsible for any typographical errors contained in this catalog.

For information about the College, its program, and its admissions procedure contact:

Office of Admissions  
Broome Community College  
P.O. Box 1017  
Binghamton, New York 13902  
Phone (607) 771-5001

Hearing impaired persons should phone (607) 771-5150 (Voice-TDD/TTY).

## PARTNERS IN PROGRESS



Broome  
Community College



State University  
of New York (SUNY)



Broome County  
(College Sponsor)



**Broome Community College**

**BROOME COMMUNITY COLLEGE**

**1988-89**

**CATALOG**

*A comprehensive Community College Supervised by SUNY (State University of New York) and sponsored by the County of Broome.*

**BROOME COMMUNITY COLLEGE P.O. BOX 1017, BINGHAMTON, N.Y. 13902  
PHONE (607) 771-5000**



# HOW TO USE THIS CATALOG

To help readers find their way through the pages of this catalog, a few words of explanation may be helpful. The catalog is assembled in essentially five parts, as follows:

**PART 1**, which consists of pages 3 to 34, contains the policies, procedures and regulations of the College. And as the accompanying table of contents shows, these are divided into such areas as admissions, financial aid, expenses, academic affairs and student affairs.

**PART 2**, which runs from pages 35 to 68, is a rundown of the College's programs and curriculums, arranged in alphabetical order by Academic Division. It shows the courses taken by students in each semester, along with the number of class hours, laboratory hours and credits for each. A summary of the field for which each curriculum prepares its graduates is also included.

**PART 3**, from pages 69 to 79, is directed to part-time students. It has academic information for them including a presentation of the programs of study for them for degrees and certificates. It also includes information about the College's Center for Community Education and its non-credit offerings (page 79).

**PART 4**, covering pages 80 to 123, carries the descriptions of the college's courses. These are arranged in alphabetical order, according to subject matter, starting with Anthropology.

**PART 5**, which appears on pages 124 to 138, is essentially the listing of the administration and faculty of the College. There is also information about the State University of New York, of which the College is a part.

Attention is also directed to the INDEX on pages 139 to 141. This is an alphabetical listing of the topics covered in the catalog together with the page numbers where one can find them.



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# PART 1



# ABOUT BROOME COMMUNITY COLLEGE



Broome Community College is a comprehensive community college. It has programs designed to prepare graduates for intermediate employment and for transfer to four-year colleges and universities the at the junior, or third year, level.

In addition to its daytime enrollment of about 3,500 full-time students last year, the college has a sizable and number of part-time students. There were about 3,000 in the evening program last year and more than 2000 took courses during the Summer Session.

The College is co-educational, publicly-supported, and has historically attracted about two-thirds of its student body from Broome County and one-third from outside the county. The ratio has recently been closer to 80% and 20%.

The day student body can be classified into six parts, based on study objectives—the business programs, engineering and engineering technology curriculums, health science courses, liberal arts programs, computer studies, and special career offerings.

The College is sponsored by Broome County, supervised by the State University of New York, and accredited by both professional and educational organizations (see inside front cover). Its programs, moreover, are registered with the State Education Department.

## HISTORY OF THE COLLEGE

The College graduated its first class in 1949. These students had entered what was then known as the New York State Institute of Applied Arts and Sciences at Binghamton in the fall of 1947. The original institute was one of five founded in the state in 1946, following the pattern of six agricultural and technical institutes which New York had established earlier in the century. The first programs offered were all occupational in nature and included Chemical, Electrical and Mechanical Technology, as well as Medical and Technical Office Assistant curriculums.

In 1953 New York relinquished operating control of the school to a new sponsor, the County of Broome, under provisions of the State Community College Law, and the name was changed to Broome County Technical Institute. In 1956 the name was again changed to Broome Technical Community College, to reflect the increasingly comprehensive nature of the educational offerings. In 1971 the name became Broome Community College as the scope of curriculums continued to expand.

The Civil Technology program was added to the five original curriculums in 1957, Dental Hygiene was introduced in 1956, and the Business programs were expanded to include offerings in Accounting, Marketing, Engineering Secretarial in the early 1960's.

A big change in the College's program began in the late 1950's as a result of a new emphasis on university-parallel or transfer programs to go along with the College's occupational offerings. Engineering Science, the first two years of an engineering program, was introduced in 1958, Liberal Arts and Sciences (now Liberal and General Studies) in 1962; and Business Administration in 1963.

In the late 60's interest began to develop in the health science field. As a result, the College introduced a degree-granting program in X-Ray Technology in 1965, added Medical Laboratory Technology in 1966, Nursing a year later, and the Medical Record Technology in 1969. The College was responding to the changing needs of the area and adjusting its offerings to fulfill the mission of catering to the post-high school educational needs of the community.

Criminal Justice and Child Care have been added since, and degree programs in Individual Studies and in Industrial Safety and Occupational Hygiene have also been introduced, along with Office Services Assistant. Additional new offerings have more recently been added in Computer Studies and in Tool and Die Making. A program in Word Processing was added in 1984-1985.

For its first five years, the school was housed in a refurbished State Guard Armory in downtown Binghamton. This building is located across from the Forum and was gutted by fire in September 1951. For the next five years, Kalurah Temple (now the Church of God building on Washington Street) and two other buildings in the city provided temporary quarters. In 1957 the College moved to its present campus just north of Binghamton. The first addition to the original campus came with the construction of Titchener Hall which was dedicated in 1963. The Library Building was completed five years later, and the Business Building opened in 1972.

A new Applied Technology Building has been completed and opened for classes at the beginning of the 1987 Spring Semester, the Science Building has been enlarged, and expansion of the Student Center is also underway.

## THE COMMUNITY

The community is an industrial and agricultural area in New York State's Southern Tier. It is in the approximate center of the state, measuring from east to west, and its southern extremity touches the Pennsylvania state line.

Binghamton is the principal city in Broome County, but it is only a part of the community known as the Triple Cities. Endicott and Johnson City, along with Vestal and other suburbs, help to make the community much larger in population and geography than the city of Binghamton.

Binghamton has a population of about 55,000 and Broome County's population exceeds 200,000. Diversified industry in the community includes such firms as IBM, General Electric, The Link Division of Singer Co., Savin, New York State Electric and Gas Corp., Universal Instruments and Endicott Johnson.

The College has become an integral part of the community since it was started in 1946. Many of the campus facilities are offered at nominal cost for use by responsible organizations, and most of the College's curriculums are designed to help fill the economic needs of the county.

## THE CAMPUS

The College campus is located three miles north of Binghamton on Upper Front Street, which is Route 11 and Route 12 at this point running alongside of Interstate 81. Nine of the 12 buildings form two contiguous quadrangles to make a compact campus layout.

Most of the buildings are two stories high, of modern functional design, and made of brick with colored panelwall facing. They lie in a suburban setting in the virtual center of the College's 120 acres of land.

Classes are held at the Nimmonsburg Center, one mile north of the campus on Front Street.

In addition to classrooms and laboratories, the campus has its own cafeteria, gymnasium and athletic fields and a Little Theater. These facilities add up to make the campus a multi-million dollar investment in the youth of Broome and surrounding counties.

## CAMPUS CARILLON

The College has a Maas-Rowe symphonic carillon, which tolls the hours with chimes and occasionally plays musical selections through its automatic music roll attachment. The carillon was a gift to the College, donated by the College Foundation.



# 46 COLLEGE PROGRAMS OF STUDY

## DEGREE- GRANTING CURRICULUMS IN 31 FIELDS OF STUDY

### **Business and Office Technologies**

- 1-Accounting  
Emphasis in Banking/  
Finance
- \*2-Business Administration
- 3-Hotel/Restaurant  
Management
- 4-Marketing/Management  
Emphasis in Management  
Emphasis in Marketing  
Emphasis in  
Entrepreneurship  
Emphasis in Real Estate  
Emphasis in Retail  
Management
- 5-Travel and Tourism
- 6-Executive Secretary
- 7-Word Processing
- 8-Office Services Assistant

### **Technology, Engineering and Computing**

- 9-Chemical Engineering  
Technology
- 10-Civil Engineering  
Technology
- 11-Electrical Engineering  
Technology
- 12-Mechanical Engineering  
Technology
- 13-Industrial Technology
- 14-Industrial Technology -  
Industrial Safety and  
Occupational Hygiene
- \*15-Engineering Science
- \*16-Computer Science
- 17-Data Processing
- 18-Computer Technology

### **Health Sciences**

- 19-Dental Hygiene
- 20-Medical Assisting
- 21-Medical Laboratory  
Technology

- 22-Medical Record  
Technology
- 23-Undergraduate-Nursing
- 24-Radiologic Technology

### **Liberal and General Studies**

- \*25-Liberal Arts (Associate in  
Arts and Associate in  
Science degrees)
- 26-Child Care
- 27-Criminal Justice
- 28-Fire Protection  
Technology
- \*29-Individual Studies  
(AS & AAS)
- \*30-Paralegal Assistant
- \*31-Communications and  
Media Arts



Unless otherwise indicated, degree programs are occupational in nature and designed to prepare graduates for immediate employment.

\* These programs are designed to prepare graduates for transfer to four-year colleges and universities in the third, or junior, year.

## CERTIFICATE PROGRAMS IN 15 FIELDS OF STUDY

These programs generally consist of half the number of credits in an associate degree curriculum and are, therefore the equivalent of one year of college study. Most are given in the evening.

### **1-Business Skills:**

may be designed to  
concentrate in  
Accounting  
Management  
Marketing-Sales and  
Retailing

### **2-Office Technologies**

### **3-Child Care**

### **4-Criminal Justice**

### **5-Dietary Manager**

### **6-Fire Protection Technology**

### **Industrial Technology with emphasis in:**

- 7-Chemical
- 8-Civil
- 9-Electrical
- 10-Mechanical
- 11-Production Management

### **12-Interior Design**

### **13-Liberal Arts**

### **14-Machinist Related Instruction**

### **15-Paralegal Assistant**



# COLLEGE MISSION AND GOALS STATEMENTS

Broome Community College is a public, comprehensive, educational institution providing: (1) arts and sciences transfer degrees, (2) occupational degrees and certificate programs in health, business and technology, (3) developmental learning program, (4) student and administrative services, and (5) continuing and community education programs.

## GOALS

**1. Access**—Broome Community College is a full opportunity college providing opportunities to all students who are seeking access to the College program.

**2. Diversity**—Broome Community College provides a diverse academic and student development program, supported by appropriate educational and administrative services.

**3. Quality**—Broome Community College provides quality programs, and utilizes internal and external evaluation processes to preserve and improve program excellence.

**4. Community**—Broome Community College supports efforts designed to improve economic development and quality of life in the region, the College has a commitment to provide businesses, industries, agencies and other community members with educational courses, training programs and other services as needed.

**5. Resources**—Broome Community College seeks and acquires the necessary levels of physical, fiscal and human resources requisite to preserve and improve program quality.

**6. Governance**—Broome Community College leadership collaborates with the numerous internal and external governance bodies to foster and sustain collegial rapport to ensure responsible decisions and actions.

## AUTHORIZATION

Broome County is the sponsor of Broome Community College, which was established in 1946 and is one of the oldest community colleges in the State University of New York (SUNY) system. The College is governed by a Board of Trustees and funded by annual appropriations (operational and capital) from state and county funds, and students pay up to one-third of the college's operating costs through tuition. Five of the trustees are appointed by the County Executive, with approval of the County Legislature, and four by the Governor. County and trustee governance policy and practice are based on a mutually determined modified "Plan C" resolution of County Government.

The College President is appointed by the College Board of Trustees, with approval of the Chancellor of the State University of New York and the SUNY Board of Trustees. His/Her direct supervisor is the chairman of the College Board of Trustees. The SUNY Chancellor provides an umbrella type of leadership to the president through a deputy for community colleges to insure that appropriate SUNY policies and regulations and State Education Department (SED) guidelines for post-secondary institutions are followed.

Degree-granting authority for Broome Community College is given by the Board of Regents of the University of the State of New York, and the College's academic program is accredited by the Middle States Association of Colleges and Schools.

## DEFINITION

Since the date of charter in 1946, as the New York State Institute of Applied Arts and Sciences at Binghamton, the College has moved from a limited access technical institute to a comprehensive community college with a Full Opportunity enrollment policy. Broome Community College is organized into three primary divisions: academic, administrative, and student services, each of which is administered by a Vice President reporting to the College President.

The Board of Trustees establishes College policy, and the Administration interprets and implements it, working in conjunction with the Sponsor, State University of New York (SUNY), the State Education Department (SED), and the various accrediting bodies that evaluate and make recommendations on the objectives and outcomes of the College program.

Broome Community College emphasizes classroom and applied laboratory educational activities rather than being a research institution. By developing a quality program and excellence in teaching, the College provides diversified educational opportunities to individuals of varied ages. A particularly attractive feature of the College is that it draws most students from the geographic region known as Broome County. It provides an important link with the communities of Broome County and the surrounding regions in the Southern Tier of New York State, making social, economic and cultural contributions to recipients of these services.

The College Provides students with a broad spectrum of both humanistic and scientific/technological related competencies through its 32 degree-granting programs and its 16 certificate programs. These programs encompass six major areas, including Engineering and Engineering Technology, Business and Office Technology, Health Sciences, Liberal and General Studies, Computer Studies, and other occupational programs. We successfully place approximately 90% of our graduates in employment or continued study. The College is approved by the New York State Board of Regents to offer Associate in Arts (AA), Associate in Science (AS), Associate in Applied Science (AAS), and Associate in Occupational Studies (AOS) degrees.

Enrollment includes both full- and part-time students attending day and/or evening classes. Classes run from 8 a.m. to 10 p.m. weekdays, and there is a number of weekend classes.





# ADMISSIONS

## ADMISSIONS PROCEDURES

Students are selected as they apply, complete the admissions process, and are found suitably qualified for a particular program. The following items are required by the Admissions Office before a decision can be made on a student's application.

1. Application for Admission.
2. A non-refundable \$10 application fee (If the applicant is reapplying, seeking admittance into a part-time Early Admissions Program, or is a qualified Educational Opportunity Program (EOP) applicant, this fee may not have to be paid.)

If official transcripts are available from previous high school or college work, they should be sent to the Admissions Office to help in placing the student in the proper courses.

Here are a few items to note concerning the application process:

1. Students who wish to enroll full or part-time in any curriculum must apply through the Admissions Office.
2. American College Testing (ACT) or Scholastic Aptitude Test (SAT) score reports are not required, but if either or both are available, they should be forwarded to the Admissions Office.
3. Recommendations from high school personnel are helpful, if available.
4. An interview with an Admissions Counselor at Broome Community College is desirable.
5. The postmark date of an application is an important part of the admissions criteria and helps the College implement its first-come, first-served equal opportunity policy.
6. Most programs require that prerequisite courses be successfully completed by June 30 of the summer preceding fall enrollment.

Applicants should recognize that it is their responsibility, not a counselor's or admissions officer's, to complete the necessary forms for admission and to see that all required transcripts and/or other information are received and recognized by the Admissions Office counselors. Completing the application process is the first step toward matriculation, which also includes being accepted into a curriculum and enrolling in coursework.

Acceptance into Broome Community College only applies to the particular semester designated in the acceptance letter. If one does not attend then and wishes to enroll in a future semester, he/she must reapply. Records are kept on file for three years, so the reapplication process usually involves filling out another application form, unless additional college coursework has been completed.

BCC Study Abroad Programs have separate admissions criteria (see pg. 19).

Admission requirements for foreign students or those whose native language is not English are on pg. 29.

More information or answers to questions are available at the

Admissions Office  
Broome Community College  
P.O. Box 1017, Binghamton, N.Y. 13902  
Phone: (607) 771-5001





## SPECIAL ADMISSIONS PROGRAMS

**Early Admissions** is a program for high achieving high school students who can benefit from taking college courses, full or part-time, before graduating from high school. While high school seniors are usually enrolled in this program, qualified juniors and sophomores may also be eligible.

Anyone interested in part-time Early Admissions should contact the Admissions Office or his/her high school counselor for the special application form. Full-time applicants should use the regular student application.

**Educational Opportunity Program (EOP)** is designated for students who are educationally and economically disadvantaged. It provides additional economic aid and remedial or developmental academic help. For more information, contact the Educational Opportunity Program in the Wales Building (771-5357).

**The BCC PACE (Public Assistance Comprehensive Employment) Program** is a cooperative effort between The Department of Social Services and Broome Community College. It is geared specifically to help people with dependent children who are receiving public assistance and wish to return to school for vocational education.

We help students cope with the responsibilities of being both a parent and a student, plus help to coordinate child care and transportation needs. Those interested in this program may contact The BCC Pace Program, Room 208, Student Affairs Building, telephone: 771-5350.

**International Students (from other nations).** Broome Community College is authorized under Federal Law to enroll non-immigrant alien students. Admissions requirements for foreign students or those whose native language is not English are on page 27.

**Non-High School Diploma** applicants may qualify for a high school diploma by successfully completing 24 credit hours of coursework at BCC or any college in a degree or certificate program. Students currently in high school or those having been out of high school less than one year typically cannot qualify for this program. Additional information is available at the Admissions Office.

**Transfer Credit** for Students who have taken or are taking college level coursework is subject to the approval of the chairperson of the student's academic department at BCC. Grades earned will not be entered into the cumulative grade-point average at Broome Community College. Students must in all cases submit to the College Admissions Office official transcripts of all college level work taken and/or being taken at another college before formal acceptance will be granted.

Students transferring courses to BCC will be required to complete in credit hours the equivalent of a semester's course of study at BCC for graduation. The determination of this minimum will be the responsibility of the department faculty sponsoring the curriculum, but in no case will the requirement be less than 12

semester credits. Ordinarily this means that the last 12 credits will be taken at BCC.

## FULL OPPORTUNITY PROGRAM

Broome Community College has a Full Opportunity Program, which is designed to give every individual a chance to fulfill his/her own personal goals and potential.

This means that everyone who is a previous June graduate of a Broome County high school or a veteran from Broome County with a high school diploma is given priority for admission until March 1 and is guaranteed admission into the College, but not necessarily assured of space in the program of his/her choice. To be admitted into any program of study, all applicants must meet the academic requirements of that program. When an individual does not have the required academic background for a particular curriculum, he/she will be accepted into a program or selection of courses for which he/she is qualified if space is available. Some students may require more than two years to complete a program of study.

Admission to the College shall not be denied on the basis of age, disability, ethnic origin, nationality, political belief or affiliation, race, religion or sex.

## A TDD/TTY TELEPHONE

A TDD/TTY telephone unit is available in the Student Support Services Office to make it accessible for the hearing impaired. The number is 771-5234. The college also has one in the Counseling and Student Development Center - 771-5210.

## TUITION DEPOSIT POLICY

Students admitted to the College prior to August 1 will be requested to submit a \$50 tuition deposit. This payment will be applied toward the Fall Semester tuition bill for those students who register. Students who do not register for the Fall Semester can obtain a refund of the tuition deposit, through the end of the first week of classes, by submitting a request in writing to the College Controller. After the end of the first week of classes, the tuition deposit is non-refundable.

## HONORS PROGRAM

The Honors Program is designed for the student who expects to be involved in her/his own education. Participants are challenged to expand their understanding of life and reality through specially designed honors courses and extra curricular activities, close contact with faculty, and involvement with other highly motivated students.

Student's benefits include an increased awareness of political, economic, and social issues, development of critical thinking skills, and preparation for creative leadership in

the 21st Century, as well as an Honors diploma, an important asset in the competition for placement at selective four-year institutions.

To apply, students who believe they meet the qualifications below may obtain an application through high school guidance departments or from Dr. JoAnne Maniago, Program Coordinator, Honors Program, Broome Community College, Binghamton, New York 13902. Applications received by Admissions, along with letters of recommendation, will be forwarded to Divisional Deans who, along with Departmental Chairpersons, select students to fill the limited number of vacancies as part of the selection process.

## HONORS PROGRAM ADMISSIONS REQUIREMENTS - HIGH SCHOOL SENIORS

- 1) GPA of at least 3.2 (80 average).
- 2) SAT combined score of 1,050 or above with no subscore below 450. **OR** ACT composite score of 24 or higher with Math and English subscores of at least 21.

- 3) Two letters of recommendation:

One from a teacher.

One from a non-scholastic source such as an employer, club advisor, coach, or volunteer supervisor.

- 4) Students from New York - Regents Diploma.

## FOR CONTINUING OR TRANSFER STUDENTS

- 1) Full-Time Students having completed one semester at an accredited two or four year college with a GPA of at least 3.5. or Part-time students enrolled in at least 6 hours per semester having accumulated 12 hours of credits with a GPA of at least 3.5. **OR** Part-time students enrolled in at least 6 hours per semester having accumulated 12 hours of credits with a GPA of at least 3.5.

## HEALTH REQUIREMENTS FOR HEALTH PROGRAMS

A student's enrollment in one of the Health Science programs listed below is conditional upon passing a physical examination and obtaining appropriate immunizations when required. Students should contact the department chairpersons for specific information.

Dental Hygiene  
Medical Assistant  
Medical Laboratory Technology  
Medical Record Technology  
Nursing  
Radiologic Technology



# ACADEMIC PREPARATION FOR ADMISSIONS

CURRICULUM	REQUIRED High School subjects	RECOMMENDED High School subjects
<b>Business Administration</b>	Sequential Math I, II, III	2 units Mathematics
<b>Accounting</b>	Sequential Math I for all other business programs	2 units Science
<b>Hotel/Restaurant Management</b>		College preparatory courses
<b>Management</b>		
<b>Marketing</b>		
<b>Travel &amp; Tourism</b>		
<b>Real Estate</b>		
<b>Entrepreneurship</b>		
<b>* Chemical Engineering Technology</b>	Regents Chemistry (Min. grade 74) Sequential Math I, II, III or equivalent	Additional Regents Math, Science and Chemistry courses Physics
<b>* Civil Engineering Technology</b>	Sequential Math I, II, III or equivalent Regents Physics (Min. grade 65) or General Physics (Min. grade 74)	Additional Mathematics Technical courses
<b>† Computer Science</b>	Sequential Math I, II, III or equivalent Precalculus Math or Advanced Algebra Min. grade 74, all courses	Additional Mathematics Physics Computer Programming Typewriting
<b>† Computer Technology</b>	Sequential Math I, II, III or equivalent Min. grade 74, all courses Physics	Additional Mathematics Computer Programming Typewriting
<b>† Data Processing</b>	Sequential Math I, II, III or equivalent. Int. Alg. may replace Seq Math III Min. grade 74, all courses	Additional Mathematics Computer Programming Typewriting
<b>† Dental Hygiene</b>	Sequential Math I, or equivalent Biology, Chemistry (Regents or General)	College Preparatory courses
<b>* Electrical Engineering Technology</b>	Sequential Math I, II, III or equivalent (Min. grade 74) Regents Physics (Min. grade 65) or General Physics (Min. grade 74)	Additional Mathematics Technical courses

## ALL GRADES ARE FINAL CLASS AVERAGES AND NOT REGENT EXAM GRADES

\*BCC has a developmental program that enables students lacking the proper academic preparation for degree-granting curriculums to enroll in appropriate credit or non-credit courses that will qualify them. They can take these courses at BCC or elsewhere during the summer preceding their enrollment. The College reserves the right, however, to consider for admission only those applicants who have completed all prerequisites by June 30. Applicants who elect to take these courses during the spring and fall semesters would need three years to complete the curriculum.

†In these programs, Broome Community College gives priority for admissions to Broome County residents who will graduate from high school this academic year or are service veterans. Students interested in a degree in the Health Science or Computer Studies curriculums who enter the College in another program are cautioned that there is no guarantee that a petition to transfer will be approved. They should discuss the possibilities with the appropriate department chairperson.

CURRICULUM	REQUIRED High School subjects	RECOMMENDED High School subjects
<b>* Engineering Science</b>	Sequential Math I, II, III or equivalent Advanced Algebra and Precalculus Math Regents Chemistry Regents Physics Min. grade 80, all courses	Additional Mathematics Science courses Technical courses Computer Programming
<b>Liberal and General Studies including Communication &amp; Media Arts</b>	(Students should review degree/emphasis models on pages 54-56. These might help in selecting HS preparatory courses.)	4 Units Mathematics (Courses I, II, III and Math 12) 3 Units Science 3 Units Foreign Language 3 Units Social Studies
<b>Criminal Justice</b> <b>Early Childhood</b> <b>Fire Protection</b> <b>Technology</b> <b>Paralegal Assistant</b>	Students should review program requirements. These might be helpful in selecting its preparatory courses	3 Units Mathematics 3 Units Science 3 Units Social Science
<b>* Mechanical Engineering Technology</b>	Sequential Math I, II, III or equivalent (Min. grade 74) Regents Physics (Min. grade 65) or Gen Physics (Min. grade 74)	Additional Mathematics Technical courses Keyboarding
<b>† Medical Assisting</b>	Sequential Math I or equivalent Biology (Regents or General) Chem. (Regents or General)	Additional Mathematics Sciences courses Typewriting and/or Keyboarding
<b>*† Medical Laboratory Technology</b>	Sequential Math I, II or equivalent Biology (Regents or General) Chem. (Regents or General by permission of Department Chair)	Additional Mathematics Physics
<b>† Medical Record Technology</b>	Sequential Math I or equivalent Biology (Regents or General)	Additional Mathematics Science, Chemistry, Typewriting
<b>† Nursing</b>	Sequential Math I or equivalent Biology (Regents or General) Chem. (Regents or General) Min. grade 74, above courses	College preparatory courses
<b>† Radiologic Technology</b>	Sequential Math I, II or equivalent Biology (Regents or General) Min. grade 74 for biology and Math Another Science course	Additional Mathematics Physics (Regents or General) Chemistry (Regents or General)
<b>Office Technologies</b> <b>Executive Secretarial</b> <b>Office Services</b> <b>Word Processing</b>	Sequential Math I or equivalent	2 units Typewriting, 2 units Science 1 unit Communications or Business English



# FINANCIAL AID

Considerable financial aid is available at Broome Community College, and the College maintains a Financial Aid Office to help students. Information and applications for financial aid are sent to students who are seeking full-time enrollment when they apply for admission. Any part-time student planning to take six credit hours or more may qualify for financial aid by formally applying and being accepted into a degree or certificate program. Part-time students may receive information/applications by contacting the Student Financial Aid Office.

Financial aid at BCC falls into three broad categories - grants that do not have to be repaid, loans on which interest rates are usually low and that have to be repaid after graduation or leaving college, or part-time employment called Work-Study. Assistance usually comes from a combination of these resources, commonly referred to as a "financial aid package."

## STUDENT AND FAMILY RESOURCES

A student's financial need is a term used to describe the funds required by a student to pay for his/her college education in excess of the amount that he/she and parents can afford to pay. Financial need is determined by using a standardized formula, which defines the "initial" or "demonstrated" need. The formula:

Cost of attendance (including tuition, fees, books, room, board, transportation, etc.)

- Family Contribution (based on student's (and parents') assets household size, number in college, liabilities, etc.)

= Financial Need

The Financial Aid Office at Broome Community College operates on the premise that all parents and students have a responsibility to contribute as much as they can toward the cost of the student's education. This contribution plays the primary role in determining the actual initial need.

To qualify for financial aid, a student must be enrolled in a degree program of the College and be taking six credit hours or more, in addition to having initial or demonstrated need. This need can be met in a number of different ways - a combination of grants, loans and work-study funds in varying amounts of each. This combination is put together by the financial aid administrator and is called a "financial aid package."

Many students would be unable to attend college without financial aid. However, no matter when application for financial aid is made, disbursement of awarded money is not always made on an "as needed" basis. Therefore, every student should have sufficient resources available for living and educational expenses for several weeks into a semester.

## ESTIMATING EXPENSES

Below is a chart showing the estimated average costs for the 1988-89 college year for student expenses. It covers a 9-month period which is the length of the college year, September to May.

	*Living w/ Parent (no dependents)	Not Living w/Parent No dependents
*Tuition	\$1,150	\$1,150
Fees	78	78
Books	400	400
Transportation	480	576
Home Maintenance	1,500	NA
Personal Expenses	490	846
Rent	NA	1,929
Food	NA	1,093
Child Care	NA	NA
Total	\$4,098	\$6,072
Non-NY State Resident:		
(Additional tuition)	\$1,150	\$1,150
Total	\$5,248	\$7,222

\* The tuition amount had not been officially established when this catalog was being prepared. The amounts in this column may be subject to increase.

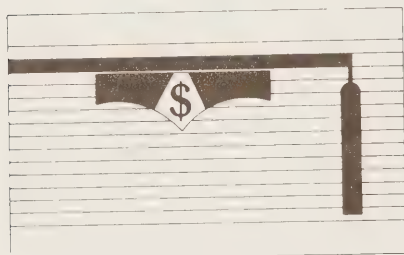
### NOTES—

- \*1) An out-of-state resident must pay an additional \$1,150 tuition.
- \*\*2) Allowances for additional expenses are made for students in certain academic programs.
- \*\*\*3) The transportation allowance may be increased depending on where the student is residing.
- 4) A child care allowance is added to the student's budget for each dependent child. The amount of the allowance varies with the age of the child.

—ALL COSTS ARE SUBJECT TO CHANGE—

## TUITION DEFERRAL

Financial Aid recipients who want to apply their aid to tuition and fees must make arrangements with the Student Accounts Office.





# HOW TO APPLY FOR FINANCIAL AID

To be considered for financial aid, students must apply each academic year.

## FEDERAL AND STATE GIFTS

All financial aid applicants will be expected to apply for two major sources of financial aid: the federal government's Pell Grant and New York State's Tuition Assistance Program (TAP). Out of state residents should contact their State Educational Agency or the Financial Aid Office for information on state grant assistance from their state of residence. Although the College provides information, applications and assistance, these funds are not generated by the college and must be applied for directly by the student to the agency. Students may apply for the Pell Grant with the Financial Aid Form (FAF) or the New York State Student Aid Form (NYSSAF).

Part-time students who have already completed 6 credit hours and enroll for at least 6 but less than 12 credits may be eligible for New York State's Aid for Part-Time Study (APTS) program. Unlike TAP, students must apply directly to the college for determination of eligibility.

Applications and information regarding these and other programs are available at the Financial Aid Office (Wales Building, Room 101).

## CAMPUS-BASED FINANCIAL AID

To be considered for both the federal government's Pell Grant AND financial aid administered by the College (Campus-Based Aid), students must submit the Financial Aid Form (FAF) to the College Scholarship Service and the BCC Application for Financial Aid to the Financial Aid Office. By filing the forms outlined above, students will be considered for the following Campus-Based financial aid in addition to the federal government's Pell Grant:

## FEDERAL CAMPUS-BASED AID

Perkins Loan (Formerly National Direct Student Loan-NDSL)  
College Work Study (CWS)  
Supplemental Educational Opportunity Grant (SEOG)

## INSTITUTIONAL CAMPUS-BASED AID

BCC Foundation Grants

The College administers a number of programs which have been established by private individuals, companies, and organizations. These scholarship and grant programs have varying eligibility requirements. Students who wish to apply for these special scholarships may request an application from the Financial Aid Office, department chairperson or division dean.

## PRIORITY FUNDING DATES

Fall Semester . . . . . April 30  
Spring Semester . . . . . December 1

Incoming students should apply for financial aid when they apply for admission. Because all campus-based funds are limited, students are strongly encouraged to submit

the appropriate forms at least four weeks before the above priority dates.

Completed applications received prior to April 30 will be given first priority. Applications received after this date will be considered as long as funds are available.

The FAF should be mailed to College Scholarship Service before March 30 to be received at the College by April 30.

## VERIFICATION

Once the Financial Aid Office has received the results of your processed application from the College Scholarship Service (CSS), you may be selected for a process called verification. This is a procedure used to check the accuracy of the information you reported on your federal financial aid application. You may be required to bring or send any supporting documentation that is necessary to verify the information you reported. If selected, you must complete the process before your financial aid can be awarded.

## NOTIFICATION OF DECISIONS

Students are generally notified of the action taken on their application shortly after April 30. Students who apply late will be notified as folders are completed. An explanation of student's rights and responsibilities is sent to all financial aid recipients at the time the award is made. Interested students may receive a copy of this information before an award is made by contacting the Financial Aid Office.

If a Student's request for aid is denied, the reasons for the decision are explained. Students may request an appeal on financial aid decisions by writing a letter to the Vice-President for Student Affairs.

**NOTE** - Students who have been administratively dropped from their class(es) for non-attendance will receive a reduced financial aid award. If financial aid has already been disbursed, a repayment of a portion or all of these funds may be owed to the College.

## SATISFACTORY ACADEMIC PROGRESS FOR TAP, APTS & TITLE IV AID

Federal regulations require aid recipients to maintain "satisfactory academic progress" before receiving Title IV aid (Pell, Perkins Loan, Work-Study, SEOG, Guaranteed Student Loan, SLS and PLUS). The College also requires satisfactory academic progress before students may receive grant assistance from the BCC Foundation or Educational Opportunity Program (EOP). The guidelines used to determine academic progress are outlined on page 23 of the catalog.

Students who have been placed on academic probation may continue to receive financial assistance while on probation. These students have one semester to achieve the minimum standards before facing dismissal from the college.

Students who have been academically dismissed will be denied aid until such time as they can meet the criteria set forth for satisfactory academic progress. Guidelines for appealing the decision of academic dismissal are outlined on page 23 of the catalog. Students who successfully petition for a waiver of dismissal may be eligible for financial aid.

The college has also adopted New York State Tuition Assistance Program (TAP) and Aid for Part-Time Study (APTS) guidelines which require good academic standing for students to continue receiving TAP & APTS. Contact the Registrar's Office in Room 206 of the Wales Building for a copy of the guidelines.

**Broome Community College does not defer SUMMER tuition based on a TAP Award.**

## PACKAGING POLICY

At Broome Community College the equity concept of financial aid packaging is used. Eligible students are funded on a need basis and a first-come, first-served order.

The Pell Grant and the New York State Tuition Assistance Program (TAP) represent the floor of the package followed by any employment, loans and grants available.

This kind of financial aid packaging ensures that any student who wishes to attend a post-secondary institution will have the opportunity to obtain the needed funding.

An example of the equity concept:

- (1) Total Student Costs (Budget)
- (2) Subtract Resources:
  - a) Parental Contribution
  - b) Student Summer Savings (\$700 or \$900)
  - c) Student Assets
  - d) Other Resources

Initial Financial Need

- (3) Subtract:
  - a) Tuition Assistance Program (TAP) Grant or Estimate
  - b) Pell Grant

Unmet Need for Campus-Based Aid

- (4) Subtract:
  - a) Educational Opportunity Program (EOP)
  - b) Perkins Loan, (Formerly NDSL)
  - c) College Work Study
  - d) Supplemental Educational Opportunity Grant (SEOG)
  - e) BCC-Grant in Aid

Unmet Need \*

\*Most students are able to satisfy their unmet need through the Guaranteed Student Loan Program. The amount of unmet need may vary from year to year.



# RIGHT AND RESPONSIBILITIES OF FINANCIAL AID RECIPIENTS

Student recipients of financial aid are the beneficiaries of money made available by a variety of agencies - federal, state, institutional, and/or private. The act of accepting a financial aid award signifies that the recipient knows about, understands, and is willing to comply with both the rights and the responsibilities involved with that award. Thus, it is the recipient's **RIGHT TO KNOW**:

- 1-What federal, state and institutional financial aid programs are available.
- 2-The deadlines for submitting application forms for each assistance program
- 3-The cost of attending the college and the refund policy
- 4-The criteria used by the college and the refund policy.
- 5-What resources (such as parental contribution) are considered in the calculation of financial need and how much of that need, as determined by the college, has been or will be met, and how (loan, grant and/or work-study)
- 6-How much of the financial aid will have to be repaid, and what portion is a grant (gift-aid). If the aid is a loan, the recipient should know what the interest rate is, the total amount that must be repaid, the payback procedures, the length of time allowed to repay the loan and when repayment is to begin.
- 7-How the college determines whether the student recipient is making satisfactory progress and what happens if not.

It is the recipient's **RESPONSIBILITY** to:

- 1-Know and understand fully the financial aid program and one's specific financial aid package before signing forms.
- 2-Make sure that all application forms are completed accurately and submitted, on time, to the right place.
- 3-Pay special attention to and accurately complete the application for student financial aid. Errors can result in long delays in the receipt of financial aid. Intentional misreporting of information on application forms for federal financial aid is a violation of law and is considered a criminal offense subject to penalties under the U.S. Criminal Code.
- 4-Return any and all additional documentation, verification, correction, and/or new information requested by either the Financial Aid Officer or the agency to which the application is submitted.
- 5-Read and understand all forms that one signs and keep copies of them.
- 6-Accept responsibility for all agreements signed.
- 7-Notify the lender of changes in name, address or school status, if one has a loan.
- 8-Perform the work that is agreed upon in accepting a College Work-Study award.
- 9-Know and comply with the deadlines for application and/or reapplication for aid.
- 10-Know and comply with the school's refund procedures.





## GRANTS

**NOTE**-The following financial aid information is current as of Spring 1987. Due to the nature of financial aid programs, some of this information may be changed during the academic year. Please contact the Financial Aid Office for updated information.

ELIGIBILITY	AMOUNT PER YEAR	WHERE/HOW TO APPLY
-------------	-----------------	--------------------

### TUITION ASSISTANCE PROGRAM (TAP)

Full-time student at any accredited college in New York State. Resident of New York State. Income and academic guidelines involved.	\$350 to \$2800, not to exceed tuition. Based on income.	New York State Higher Educational Services Corp. (HESC) 99 Washington Avenue Albany, N.Y. 12255 Forms available in BCC Financial Aid Office
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### AID FOR PART-TIME STUDY (APTS)

Part-time students and residents of New York State. Must have already completed 6 credit hours and enroll for at least 6 but less than 12 credit hours. Income and academic guidelines involved.	Amount of tuition or less depending on need and availability of funds.	Forms and further information available in BCC Financial Aid Office.
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### REGENTS COLLEGE SCHOLARSHIP

(Scholarships for nursing students and children of deceased or disabled veterans also available)

Based on SAT or ACT test scores. For full-time students at any accredited college in New York State who are New York State residents.	\$250 per year. Depending on income and class level, a TAP award may also be received that could combine with the \$250 to equal the tuition charge.	New York State Higher Educational Services Corp. (HESC) 99 Washington Avenue Albany, N.Y. 12255
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### EDUCATIONAL OPPORTUNITY PROGRAM (EOP)

Full-time and half-time students with financial need and less than an 82 high school average. Family income must be below a specific level.	Varies according to individual need. Average of \$275 per student per academic year.	Application available in the Educational Opportunity Program Office at BCC.
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### PELL GRANT PROGRAM

Accepted or enrolled full-time or half-time undergraduate students who demonstrate financial need.	From \$200 to \$2100. Cannot exceed 60% of the cost of college expenses.	Forms available in BCC Financial Aid Office and in high school guidance counselor offices after Jan. 1.
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### SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (SEOG)

For full-time or half-time students with demonstrated high financial need. On first-come, first-served basis.	Up to \$4000 depending upon need and cost of college expenses.	Student must submit a Financial Aid Form and BCC Application for Financial Aid. Forms available in BCC Financial Aid Office and in high school guidance offices.
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### BCC FOUNDATION GRANTS

Full-time or half-time students with financial need. On first-come, first-served basis.	Varies according to individual need.	Submit Financial Aid Form and BCC Application for Financial Aid. Forms available in BCC Financial Aid Office.
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## LOANS

ELIGIBILITY	AMOUNT PER YEAR	WHERE/HOW TO APPLY
-------------	-----------------	--------------------

### PERKINS LOAN (Formerly NDSL)

For full-time or half-time students with financial need. Student borrows from the college on own signature. Awarded on a first-come, first-served basis.	Amount varies according to student's need. Up to \$4500 for first two years of undergraduate study, and up to \$9000 for all years of undergraduate study.	Student must submit Financial Aid Form and BCC Application for Financial Aid. Forms available in BCC Financial Aid Office.
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### GUARANTEED STUDENT LOAN (GSL)

For full-time or half-time students. Student borrows on own signature from a participating bank. Student must show financial need.	Maximum of \$2625 per year for the first and second year of an undergraduate program, and \$9000 per year for the remaining undergraduate years - not to exceed a cumulative of \$17,250.	New York State residents indicating an interest in a GSL by checking appropriate box on the Financial Aid Form, will receive a loan application by mail. GSL applications can also be obtained at most banks or credit unions. Processed application must be on file in Financial Aid Office, along with BCC Application for Financial Aid.
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### SUPPLEMENTAL LOANS FOR STUDENTS (SLS) (Formerly Auxiliary Loans to Assist Students - ALAS)

For students who are financially independent of their parents.	Maximum of \$4000 per year. Total loan limit is \$20,000.	NYS residents can apply on Guaranteed Student Loan application by checking appropriate box. Applications are available at most banks or credit unions from state of residence.
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### PARENT LOAN FOR UNDERGRADUATE STUDENTS (PLUS)

Loan program for parents of dependent undergraduate students enrolled at least half-time.	Maximum \$4000 per year per student. Total loan limit is \$20,000 per student.	Applications are available at most banks or credit unions from state or residence.
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### PAULINE PARKER LOAN

For full-time students who are Broome County residents, under 25 years of age, and in financial need.	\$1,000 maximum per year. No more than \$500 per semester. No interest charge.	Forms available in BCC Financial Aid Office.
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### EMERGENCY LOANS

For full-time or half-time students in financial emergencies (i.e. an unforeseen expense affecting the ability of the student to attend college). Sponsored by the BCC Foundation.	\$250 maximum. No interest charge. Repayment in 30 days.	Forms available in BCC Financial Aid Office. Student must substantiate need with Financial Aid Officer for all loan requests.
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## EMPLOYMENT

ELIGIBILITY	AMOUNT PER YEAR	WHERE/HOW TO APPLY
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### COLLEGE WORK-STUDY (CWS)

For full-time or half-time students with financial need. Awarded on a first-come, first-served basis.	Students may work up to 20 hours a week when classes are in session or up to 37½ hours a week during vacation. Wage: Minimum.	Student must submit Financial Aid Form and BCC Application for Financial Aid. Forms available in BCC Financial Aid Office.
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FOR ADDITIONAL INFORMATION CONSULT THE BCC FINANCIAL AID BROCHURE OR THE FINANCIAL AID OFFICE.



# EXPENSES

## TUITION

The tuition amount had not been officially established when this catalog was being prepared. The amounts in this column may be subject to increase.

Tuition and fees are payable at the Student Account Office according to a payment schedule released by the College each semester. The responsibility for payment rests upon the student, who will be billed prior to the start of each semester. Both full-time and part-time students who have registered for courses will be "de-registered" if they fail to meet established due dates for tuition/fee payment.

Students who are administratively dropped for non-attendance during the semester continue to have a tuition and fee obligation.

### STUDENTS CARRYING 12 OR MORE CREDIT OR CREDIT-EQUIVALENT HOURS

—considered full-time students.

For New York State residents	
With residency certificate	.....\$575 per semester
Without residency certificate	.....\$1,150 per semester
For out-of-state residents	.....\$1,150 per semester

Students admitted to the College prior to August 1 will be requested to submit a \$50 tuition deposit. This payment will be applied toward the Fall Semester tuition bill for those students who register. Students who do not register for the Fall Semester can obtain a refund of the tuition deposit, through the end of the first week of classes, by submitting a request in writing to the College Controller. At the end of the first week of classes, the tuition deposit is non-refundable.

### STUDENTS CARRYING FEWER THAN 12 CREDIT OR CREDIT-EQUIVALENT HOURS

—considered part-time students.

For New York State residents	
With residency certificate	.....\$46 per credit
Without residency certificate	.....\$92 per credit
For out-of-state residents	.....\$92 per credit hour

NOTE—See "credit equivalent" on page 23 for associated changes and information.

Many students may qualify for financial aid, some of which is applicable toward tuition. See Financial Aid section on pages 10 through 13.

SEE TUITION REFUND POLICY ON PAGE 15.

## RESIDENCY CERTIFICATE

To qualify for the resident tuition fee, a student is required by law to present **once each academic year** on or before registration a residency certificate indicating that he or she has been a legal resident of the State of New York for one year and of a county for six months.

**Broome County Residents**—Full-time students admitted to the College will be mailed a copy of the application for residency certificate prior to registration. This application must be completed and presented at the time of tuition payment.

**Out-of-County Residents**—Full-time students admitted to the College will be mailed a copy of the application for residency certificate prior to registration. The application must be completed, notarized and presented to the County Treasurer of the County in which the student resides. The County Treasurer will then issue a residency certificate to the student. This residency certificate must be presented at the time of tuition payment.

**Part-Time Students** must meet the same requirements as stated above. The application for residency certificate form is available at the student Account Office.

The completed residency forms are required once each academic year.

**Failure to comply with this requirement will result in paying double tuition, not to exceed the limitations cited above.**

## BOOKS, SUPPLIES, UNIFORMS AND OTHER STUDENT EXPENSES

Students provide at their own expense the necessary books and instructional materials. These may be purchased at the College Book Store maintained by the Faculty-Student Association for the convenience of the students. The cost varies, depending on the curriculum, from about \$400 to \$500.

In the Health Science curriculums students will provide, at their own expense, their own transportation to off-campus locations for necessary clinical and other experience.

In addition, some curriculums require uniforms. Among these are Hotel Technology, Nursing, Radiologic Technology, Medical Laboratory Technology and Medical Assisting. Gym clothes are necessary for physical education classes. Dental instruments and pants-type uniforms are prescribed for Dental Hygiene students.

The following expenses are in addition to the usual cost of about \$400 per year for books and are included in financial aid allowance for students enrolled in these programs:

		Senior
Freshman		
Civil Technology	..... 60	90
Dental Hygiene	..... 728	393
Electrical Technology	..... 75	0
Mechanical Technology	..... 45	60
Medical Assistant	..... 75	0
Medical Lab Technology	..... 52	0
Medical Records		
Technology	..... 105	0
Nursing	..... 435	0
Office Technologies	..... 30	50
Radiologic Technology	..... 145	0

## COLLEGE FEES

These fees are subject to increase as they had not been officially established when this catalog was being prepared.

Application Fee	..... \$10
**Late Registration	..... 10
Parking Registration	..... 1
Transcript Fee	..... 1
Returned Check Fee	..... 10
Credit by Examination	
Non-Laboratory Course	..... 25
Laboratory Course	..... Maximum 65
	\$25 plus \$10 for each clock hour of lab examination (See page 16)

Credit by Evaluation..... \*50 plus (Portfolio Assessment)  
 \*In addition to the \$50 fee there is a charge of \$5 per credit hour. This \$5 is refundable if credit is not granted. The \$50 is non-refundable, however. (See page 16.)

Chemistry Laboratory  
 Fee ..... \$5 per semester  
 For all students taking chemistry laboratory courses with 200 numbers (\$5 per course)  
 Computer Usage Fee ..... \$TBD  
 (Fee for supply intensive computer courses under consideration at time of printing.)

\*\*Late registration period begins on the first day of classes.



## STUDENT FEES

### STUDENT ACTIVITY

Full-Time Student . . . \$33 per semester  
Part-Time Student . . \$2 per credit hour

The activity fee entitles all students to admission to varsity games, convocations, dances and parties, as well as a subscription to the student newspaper and the opportunity to participate in a varied program of co-curricular activities, including intramural athletics.

The Student Activity Fee is budgeted and administered by the Student Government with the approval of the College Administration and in recent years has been apportioned to the following activities:

- Campus Publications
  - Newspaper, Yearbook
- Program Board
  - Speakers, Performers, Dances, Movies, Picnics, Special On and Off-Campus Programming
- Club Council
  - 32 funded clubs including most curriculum organizations
- Athletics
  - 13 male and female intercollegiate teams, coaching stipends, intramurals, administrative expenses
- Student Government Association
  - Administrative expenses, vehicle maintenance, class gift, audit, supplies

SEE REFUND POLICY ON THIS PAGE.

## ACCIDENT INSURANCE, HEALTH SERVICE FEE

Full-Time Student Accident Insurance . . . . . \$10 per year

Health Service Fee

Full-Time Students . . . \$3 per semester

Part-Time Students . . . \$1 per semester

(This is a compulsory fee and covers all services provided by the Health Service Office.)

Money collected from the Health Service fee is used for physician services, drugs, supplies, educational material, diagnostic equipment, special health programs and related health Service expenses. The fee is non-refundable if the student withdraws from the College.

The accident policy covers the student for 12 months commencing the first day of classes for expenses incurred as a result of any accident, on or off campus. Maximum coverage is \$1,000 per accident. Claim forms are available in the Health Service during the year, and must be filed with the Health Service before expenses will be paid. Students who withdraw and wish a refund of their accident policy must apply directly to the insurance company.



### INTERNATIONAL STUDENT HEALTH INSURANCE

International students must show that they have health insurance coverage before they may enroll at the College. Health Insurance is available through the College at the following rates (which may be subject to change; Fall semester - \$110, Spring semester - \$88, and summer - \$66. Claim forms are available in the Health Service during the year. Students who withdraw and wish a refund of their health insurance fee must apply directly to the insurance company. Note that the "Health Insurance" mentioned in this paragraph is different from the "Health Service Fee" in the first paragraph above.

### MEDICAL INSURANCE

The College **does not** provide medical insurance, but it is available through a number of insurance companies.

### GRADUATION/CERTIFICATE FEE

Graduation\* . . . . . \$18

Certificate (part-time evenings only) . . . . . \$8

\*Subject to increase

Paid during semester preceding graduation and is refundable if the student does not graduate or earn certificate.

### ALUMNI LIFETIME

MEMBERSHIP . . . . . \$25

Membership in the Broome Community College Alumni Association is optional. The lifetime dues are payable during the semester preceding graduation, and they entitle graduates to complete Association benefits.

**FOR GENERAL INFORMATION CONCERNING CREDITS, TRANSCRIPTS AND TUITION FOR STUDY ABROAD, INTERSESSION AND SUMMER SESSION SEE PAGE 19.**

## REFUND POLICIES, PROCEDURES

### TUITION REFUND POLICY

#### Fall and Spring Semesters

Students who **officially withdraw** from classes during the first four weeks of a semester will be entitled to tuition refunds on the following basis -100% refund during the first week, 50% during the second week, and 25% during the third and fourth weeks. After four weeks of the semester there will be no refunds. See College Calendar on page 142 for additional information on dates for tuition refunds.

NOTE—Participants in the New York Civil Service Employees Association Labor Education Action Program (LEAP) will be subject to the tuition refund regulations specified in the LEAP guidelines.

#### Summer Session

Students who withdraw from Summer Session, classes will be entitled to a 100% refund during the first week of the term. After that, there will be no refunds.

### FEE REFUND POLICY

The student activity fee is refundable according to the same schedule as tuition. See "Tuition Refund Policy" above.

### REFUND PROCEDURE

An application for refund of tuition and fees must be made in writing in the Registrar's Office (W-206). The application must be on the College form provided. The date on which the application is filed is considered the official date of the student's withdrawal and any refund to which the student may be entitled is computed using the date.

## OTHER PROCEDURES

Students who defer tuition on Financial Aid and who then become ineligible to receive that aid or any portion of it will be subject to an immediate obligation for payment and/or collection of disbursements. The College reserves the right to use whatever collection procedures it deems appropriate to satisfy any outstanding debt.



# ACADEMIC AFFAIRS

## REQUIREMENTS FOR GRADUATION

COMMON REQUIREMENTS FOR ALL FOUR DEGREES GRANTED BY THE COLLEGE

1. Successful completion of all courses for the degree as contained in this Catalog.
2. A 2.00 Cumulative GRADE POINT AVERAGE in those courses applicable to the degree.
3. Filing of a Declaration of Candidacy and Request for Degree Checkout in final semester.
4. Recommendation of the faculty for the awarding of the degree.
5. Satisfaction of all obligations to the College.
6. Specific Curriculum Requirements
7. Satisfaction of General Education Requirements.

## THE ASSOCIATE IN SCIENCE DEGREE (AS)

This degree is awarded to graduates of the Business Administration, Communication & Media Arts, Computer Science, Engineering Science and Individual Studies curriculums, and Mental Health and the Science Option in Liberal and General Studies.

6. A.S. Curriculum Requirements:
  - a. At least 30 credits in the humanities, natural sciences, mathematics, and social sciences.
  - b. Physical Education - 2 credits (for Business Administration, Liberal Arts, Computer Science and Engineering Science students only).
  - c. Satisfaction of General Education requirements.

## THE ASSOCIATE IN APPLIED SCIENCE DEGREE (AAS)

This degree is awarded to graduates of curriculums in these fields of study:

Accounting  
Chemical Engineering Technology  
Child Care  
Civil Engineering Technology  
Computer Technology  
Criminal Justice-Police  
Data Processing  
Dental Hygiene  
Electrical Engineering Technology  
Executive Secretarial  
Fire Protection Technology  
Hotel/Restaurant Management  
Individual Studies  
Industrial Technology  
Marketing/Management  
Mechanical Engineering Technology  
Medical Assistant  
Medical Laboratory Technology

\*Medical Record Technology  
Nursing  
Office Services Assistant  
Paralegal Assistant  
\*Radiologic Technology  
Travel & Tourism  
Word Processing

6. Curriculum Requirements
  - a. The minimum number of credits in a student's major field as determined by each academic department. These are courses intrinsic to and required by the various curriculums.
  - b. A minimum of 20 credits in Liberal and General Studies courses will include:
    - 1) Social Sciences: a minimum of 6 credits including 3 in designated courses
    - 2) Natural and Physical Sciences (including mathematics): a minimum of 6 credits
    - 3) Humanities: a minimum of 6 credits in English
    - 4) Satisfaction of General Education requirements
  - c. Satisfactory completion of all courses in a curriculum or as approved in a department.
  - \*d. Summer clinical experience required for graduation in curriculums noted.

## THE ASSOCIATE IN ARTS DEGREE (AA)

This degree is awarded to graduates in the Liberal and General Studies curriculum.

6. Liberal and General Studies requirements are distributed as follows:
  - a. English: 12 credits, including ENG 110, 220, LIT 200 and LIT elective.
  - b. History: a minimum of 6 credits in approved courses.
  - c. Humanities: a minimum of 6 credits (6 in Philosophy or 6 in a foreign language).
  - d. Mathematics: Students who have completed fewer than 3 units of secondary school mathematics (through 11th year math) are required to take two semesters of college level mathematics. Students who have completed 3 units of secondary school mathematics (through 11th year math) are required to take one semester of college level mathematics. Students who have completed more than 3 units of secondary school mathematics (including 11th year math) are not required to take additional mathematics. They may, however, elect an appropriate math course or an elective in another field.
  - e. Natural and Physical Sciences: a minimum of 8 credits.
  - f. Social Sciences: a minimum of 6 credits in designated courses.

- g. Electives: 16 credits minimum. A maximum of 16 credits may be taken outside the offerings in Liberal and General Studies with the approval of the dean of the division.
- h. Completion of two writing emphasis "W" courses.
- i. Physical Education: 2 credits.
- j. Satisfactory completion of all courses in a curriculum or as approved in a department.

## THE ASSOCIATE IN OCCUPATIONAL STUDIES DEGREE (AOS)

This degree is awarded to graduates in Tool and Die Making which is currently under revision and will not be accepting students in 1988-89.

6. There is no specific requirements to take particular numbers of credit in general education courses for the AOS degree.

## CREDIT BY EVALUATION

### NON-TRADITIONAL STUDY

Broome Community College acknowledges that it is necessary and worthwhile to consider various non-traditional activities for credit. By documenting and demonstrating that learning has taken place through various prior experiences, matriculated students may be awarded academic credit.

The divisional dean is the initial contact for students interested in obtaining more information about non-traditional study and examination programs. Students will be assisted in determining whether or not such study or evaluation would be worth pursuing.

The academic department, sponsor of the student's degree program, is responsible for integrating any credit achieved in this manner into the student's academic program. All procedures entail fees. Inquire in your divisional office.

### ADVANCED PLACEMENT EXAMINATION (AP)

The College will recognize for credit the AP examinations of the College Entrance Examination Board. A score of three or above is generally acceptable for credit, but each academic department establishes its policy. Laboratory courses may require additional lab work for full credit for a college course. Credit awarded will be handled as a transfer credit.

### COLLEGE PROFICIENCY EXAMS (CP)

The CP exams of the University of the State of New York will be recognized for credit upon approval by the appropriate department. Credit awarded will be handled as transfer credit.



## CREDIT LEVEL EXAMINATION PROGRAM (CLEP)

The College will recognize successful achievement at or above the 50th percentile on CLEP **subject** exams in accordance with SUNY and American Council of Education guidelines. Approval of credit for degree requirements or electives is determined by the appropriate department. Credit approval will be handled as transfer credit. Under certain circumstances, a department may accept general examination scores.

## BCC CREDIT BY EXAMINATION (CBE)

The College in many instances provides for full or part-time BCC matriculated students credit by examination for knowledge gained outside the traditional classroom situation. Credit awarded will be recorded as transfer credit. Guidelines for this procedure are available from the College's chairpersons and deans. If a student receives an "F" grade after normal completion of a course, no credit by examination may be given in that subject.

## PORTFOLIO ASSESSMENT (Special Individual Assessment)

The College will evaluate for credit various types of learning acquired outside the usual classroom environment. Particular criteria for awarding credit may be applied by an academic department. Approval of credit is the responsibility of the appropriate department. Students must clearly identify what has been learned. Contact the divisional dean for additional information. Fees, p. 14.

## SPECIAL ASSESSMENT OF EXPERIENTIAL LEARNING

The College will evaluate for credit various types of learning acquired through participation in learning experiences or training provided by business, industry, unions, professional societies, governmental agencies or the military. Particular criteria for awarding credit may be applied by an academic department, and approval of credit is the responsibility of the department. Contact the divisional dean for additional information.



## THE CECIL C. TYRRELL LEARNING RESOURCES CENTER

The Cecil C. Tyrrell Learning Resources Center provides a wide variety of learning resources. Housed in the center are the Library, the Audio Visual Department, the Learning Assistance Center, and various specialized learning laboratories, as well as offices and classrooms.

A staff of professional, technical and clerical specialists offers the students a broad range of services designed to meet their academic needs. Typical library services include lending of materials, information services, access to other learning resource centers, interlibrary loan service, assistance in research techniques, and instruction in the use of materials and equipment. A coin operated photocopier is also available.

The Learning Resources Center's primary function is to support and supplement the academic programs of the college and to provide a center for serious study, research and learning. Requests for assistance are welcomed by the staff.

The facilities have a capacity of nearly 800 users. Individual carrels, lounge furniture, multiple person tables and stools, and small group study rooms are available. Audio-Visual equipment including projectors, tape and record players, micro-film reader/printers, as well as more specialized machines, are located in the center for student use. Some typewriters and equipment for students with vision disabilities are also available.

The Learning Resources Center was constructed in 1967-68 and named for the College's founding president in 1972, the year he retired after 26 years in the position. The building is an attractive and modern three-story structure, with more than 40,000 square feet of space devoted to its learning facilities.

The Learning Resource Center collections offer many different types of print and nonprint materials carefully selected to meet the academic needs of students at college level. The print collections consist of nearly 70,000 books, 650 current periodicals and serials, plus over 10,000 pamphlets.

More than 3,000 audio recordings, slides, filmstrips, maps, microfilms, multimedia kits, and other types of media add several thousand more items to the collection. An extensive file of college catalogs is maintained.

Most materials including magazines may be borrowed for use outside the center, although some restrictions are placed on reference and reserve materials. The basic loan period for books is four weeks, and for magazines and audio visual materials, one week.

Some loan periods may be extended if requested before the date materials are due back in the center and the item is not in demand. Overdue fines are not charged as a rule, but the college reserves the right to do so with proper notification.

Library cards will be issued to students upon request, but are not required for borrowing materials. Proper identification is necessary, however. Failure to return borrowed materials promptly upon notice can result in withholding of grades, transcripts and other services.

Lost and damaged materials must be replaced or paid for at current replacement costs, and the borrower is responsible for all materials charged out on his/her card.

The center is open for full service during the following hours:

### Fall and Spring Semesters

Monday-Thursday . . . . 8 am to 10 pm  
Friday . . . . . 8 am to 5 pm  
Saturday . . . . . 12 noon to 5 pm  
Sunday . . . . . 4 pm to 10 pm

### Holiday and Intersession

Monday-Friday . . . . . 8 am to 5 pm

### Summer Session

Monday-Thursday . . . . 8 am to 10 pm  
Friday . . . . . 8 am to 5 pm

The center is closed on all days that the College is officially closed.)



# PROGRAMS OF THE COLLEGE

## DEGREE PROGRAMS

Graduates of Broome Community College receive associate degrees, and the courses of study are organized into four divisions - Business and Office Technologies; Technology, Engineering and Computing; Health Sciences; Liberal and General Studies. Liberal Arts courses are included in all curriculums, and all students must meet the College's General Education requirements. Applicants to the College should consider carefully the type of program they wish to pursue, for the nature of the offerings makes it difficult to switch from one curriculum to another after commencing studies.

### BUSINESS AND OFFICE TECHNOLOGIES

The Business curriculums are designed primarily to prepare graduates for immediate employment in one of 11 fields - Accounting, Banking, Hotel/Restaurant Technology, Real Estate, Travel & Tourism, Retail Management, Entrepreneurship, Management, Marketing, Word Processing, Executive Secretarial and Office Services Assistant. In addition, there is a 12th option, Business Administration, that combines more university parallel preparation with a minimum of job-oriented courses. This program is intended for the person who plans to continue his/her college education for a baccalaureate degree, even though he/she may want to work for a while before transferring to a four-year college.

It is possible to transfer from all programs. But because each student's transfer credits are evaluated by the four-year institution, the number of credits accepted can vary.

### HEALTH SCIENCES

Opportunities for men and women interested in the health sciences field are provided in six areas - Dental Hygiene, Medical Assisting, Medical Laboratory Technology, Medical Record Technology, Nursing and Radiologic Technology. Graduates are prepared to work immediately after graduation in physicians' or dentists' offices, laboratories or hospitals. A.S. graduates of these programs are qualified to take whatever licensing or certification examination their professions require as a result of the state/national accreditation held by all BCC Health Science programs. Graduates may be eligible to transfer to upper division colleges and universities. The College also offers a Dietary Manager Certificate program for those working in the field.

### LIBERAL AND GENERAL STUDIES

University parallel curriculum in Arts and Sciences and in Special Career Programs of an occupational nature are included in this division. Curriculums in Arts and Sciences prepare students for transfer to four-year colleges and universities. While the aim of liberal learning is to broaden human perspective and deepen understanding through the study of philosophy, history, natural

sciences, literature and the arts, students who identify career/professional goals early can begin to develop appropriate academic concentrations. Liberal and General Studies degree programs are also offered for those seeking immediate employment. Refer to the career models on page 57 through 58 in this catalog.

The College offers, through its Special Career Programs Department, degree opportunities in five other academic areas - Early Childhood, Criminal Justice, Fire Protection Technology, Individual Studies and Paralegal Assistant. All lead to the Associate in Applied Science degree, and Individual Studies students may earn either that degree or the Associate in Science degree, depending on their program of study. All are conducted under the Special Career Programs Department.

### TECHNOLOGY, ENGINEERING AND COMPUTING

In the area of technical education, the College offers 10 programs. One, Engineering Science, is in effect the first two years of an engineering curriculum. Students who do satisfactory work in it should experience little difficulty in transferring to engineering colleges at the third-year level.

Four others are designed to educate engineering technicians in the fields of Chemical Engineering Technology, Civil Engineering Technology, Electrical Engineering Technology and Mechanical Engineering Technology. Students in these programs are prepared for employment in various types of technical work immediately after graduation, although many students do transfer to four-year colleges.

The Computer Studies Department offers three programs - Computer Science, Computer Technology and Data Processing. The Computer Science program is designed for transfer to four-year colleges, while graduates of the other two are prepared for immediate employment.

Other programs in the technical field offered by the college include Industrial Technology and Tool & Die Making.

## CERTIFICATE PROGRAMS

Broome Community College also has certificate programs which are less than two years in length, have more specific objectives than the associate degree offerings, and consist of about one year of college credit. Some are designed to prepare students for jobs that require specialized higher education, but not necessarily a college degree; some provide students with an opportunity to upgrade their academic backgrounds or expand their qualifications for a particular field of study; and some offer college credits and additional training of people already working in the field.

Most of the certificate offerings carry college credits, and they can lead a person into some of Broome Community College's degree-granting curriculums. They can be taken on a full-time or part-time basis, and most of them are offered in the evening although some are available through day classes. No specific high school courses are required for enrollment.

Further details, a listing of courses, and literature about most of these certificate programs are available in Room 101 of the library.

### CERTIFICATE PROGRAMS

**Business Emphasis**  
Accounting  
Management  
Marketing/Sales/Retailing  
**Early Childhood**  
Criminal Justice  
Dietary Manager  
Fire Protection Technology  
**Industrial Technology Emphases**  
Chemical  
Civil  
Electrical  
Mechanical  
Production Management  
Interior Design  
Liberal and General Studies  
Machinist Related Instruction  
Office Technologies  
Paralegal Assistant  
Technical





# INTERNATIONAL STUDIES PROGRAM

Broome Community College is a founding member of the College Consortium for International Studies, a group of 110 colleges spreading geographically from Canada to Florida and from California to Maryland. This consortium, during the 1987-88 academic year offered students about 65 overseas academic programs in 27 foreign locations.

The programs range from structured, formal courses at affiliated schools and institutions abroad, to service-learning and contract-independent study courses. Students may choose from short-term programs in January and during the summer to longer term, semester and year-long programs.

## SEMESTER ABROAD PROGRAMS

BCC provides formal, structured programs lasting for a semester, a year or two years, in England, Denmark, France, Spain, Italy, China, Israel, Mexico, Scotland, Germany and Switzerland. Students study a full semester program (usually 15 to 18 credits) that is arranged prior to their departure at affiliated schools, institutions, colleges or universities abroad.

The subject areas range from liberal arts courses to specialized programs, such as criminal justice, and languages. Costs of these programs vary greatly, with emphasis on high quality programs at public institutions. The costs approximate those at U.S. public colleges. For 1987-88, the cost of a full semester in the popular program in England was about \$2,800. This includes full room and board, all tuition cost, round trip air transportation, and many extras.

Many BCC students will find their academic and personal lives enriched through a cultural experience difficult to match in a conventional two-year course of study in this country. BCC maintains close communication with consortium offices in New York, London and Jerusalem to facilitate the placement of students in qualified institutions abroad.

## ADMISSION TO PROGRAMS

Admission to the College does not automatically insure admission to BCC program's overseas; separate application must be made to the consortium. Students will be evaluated on their academic ability, motivation, maturity and potential adaptability to a foreign culture. In addition to BCC approval, interviews with personnel from affiliate consortium institutions may be required. All programs are available to students from any college or the general public. At least one-half of the participants last year were community residents who went on short-term programs on a non-credit basis.

## JANUARY & SUMMER SHORT PROGRAMS

During each academic year BCC conducts a variety of short-term programs in January and in the summer months. Students at BCC who have been introduced to study abroad through these short-term programs, usually two to three weeks in length, often decide to study overseas for a semester or year.

The short-term courses have grown in scope, as well as in number. During recent intersessions, courses have been in London in Theater, Real Estate, Criminal Justice Seminar, Nursing Seminar, Social Welfare Seminar, Psychology Seminar. Students were also able to study Italian Culture and Art in Italy and Tropical Field Ecology in the Virgin Islands. Costs for these programs last year started at \$729 for the London courses. A full list of the January offerings is usually available by November.

The summer programs vary in length from two weeks to two months. Recent offerings have included Music and Art in Vienna, Antiquities of Ireland, Italian Culture and Language History and Culture of Spain and North Africa, Discover China, and Anthropology Field Study in Mexico. Costs in the summer programs are somewhat higher than those in January due to higher airline cost.

During the summer, there are special month-long programs at the University of Madrid for Spanish students and the University of Caen for French students. The cost of these programs was \$1,995 each for 1987, but most students are able to qualify for scholarships under a special grant from the Spanish or French governments. Similar programs are offered in Italy, Mexico and Germany. A full list of courses being offered during the summer is usually available in March.

## STUDENTS FROM OTHER NATIONS (See Page 29)



## CREDITS, TRANSCRIPTS AND TUITION

### For Study Abroad, Intersession and Summer Session

Students register at BCC and pay the appropriate tuition, which in many cases covers the instructional cost abroad. Students are monitored through consortium offices at the college they attend. Upon the successful completion of the formal program or after fulfillment of the contract, students will receive a BCC transcript reflecting the grades achieved or the course equivalents or the work done through the contract, greatly facilitating transfer of credits to other American institutions.

Full-time students registering for courses that are scheduled other than in the Fall or Spring Semesters will be charged at the part-time tuition rate. Sessions other than fall and spring semesters will be called Summer Session and Intersession. Students earning credits in Summer Session and Intersession courses may earn up to 18 credits in the fall or spring semesters or up to 21 credits with permission of the appropriate dean and department chairperson.

Students who wish to earn more than six hours during any of the Summer Session terms or the Intersession are required to obtain the approval of the appropriate dean and department chairperson. The refund policy is not in effect for students taking courses in Intersession. Refund policies in semester length programs are determined by the receiving foreign institutions.

Grades received for all courses taken from the beginning of the Fall Semester through the end of that semester will be considered first semester grades. Grades received for all courses taken from the end of the first semester through the end of the end of the second semester (even if taken in January or abroad) will be recorded as second semester grades.

Summer Session is treated like a third semester. Its dates begin after the Second Semester Master Schedule of courses is complete through the beginning of the fall semester (grades for all Summer Session terms under the transcript heading, Summer Session).

All credits earned are Broome Community College credits, which allows students to use their financial aid packages for semester length programs.

Students may earn up to 18 credits per semester, leading to an associate degree. Credits for Intersession/short-term programs range from one to six, depending on the time spent abroad and the instruction offered in the program.

For additional details about any of the above programs, students should contact the International Studies Program Office at Broome Community College in Titchener Hall (Phone 771-5021).



# COOPERATIVE PROGRAMS WITH OTHER COLLEGES

Broome Community College has direct transfer agreements with a number of four-year colleges to facilitate the acceptance of BCC graduates into the third year of study. The number of colleges with which BCC has such agreements is increasing each year. Further details are available in the Counseling and Student Development Center (Wales Building, Room 200).

## IN ENGINEERING SCIENCE

The Engineering Science Department has a joint admissions program with SUNY Binghamton (Watson School). It has a General Articulation Agreement with the Association of Engineering Colleges of New York State and separate agreements with Wilkes College and the Clarkson University School of Management. It also has an agreement with Binghamton High School to aid students wanting to enter the Engineering field. Contact the Department of Engineering Science for more information.

## WITH SUNY BINGHAMTON TRANSFER AGREEMENT

All Broome Community College students who have graduated or will graduate with an AA or AS degree with a grade point average of at least 3.0 will be admitted, upon application, as matriculated students in Harpur College of SUNY at Binghamton as space permits. Those students graduating with the above degrees but with a grade point average between 2.6 and 3.0 are usually admitted. Others, including those with an AAS degree, should contact the SUNY at Binghamton Office of Admissions. Admitted students will be granted junior-year standing upon presentation of 56 or more transferable credits.

## CROSS-REGISTRATION

BCC students enrolled in full-time studies (12 or more credits) may cross-register at SUNY Binghamton for one course each semester. The courses for which they cross-register must be courses that are not available at Broome Community College. No additional tuition is necessary. Additional information is available in the Registrar's Office in the Wales Building, Room 206.

## WITH KEYSTONE JUNIOR COLLEGE

BCC students may also cross-register at Keystone Junior College in LaPlume, PA for one course each semester. The courses for which they cross-register must be ones that are not available at Broome Community College, and they can take them without

paying additional tuition. Additional information is available in the Registrar's Office (Wales Building, Room 206).

## WITH COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY (SUNY)

### Pre-Environmental Science and Forestry

This program is designed for those students who ultimately desire a B.S. degree in the Environmental Science and Forestry (ESF), which is an upper division/graduate center.

After the first two years of study at Broome Community College, transfers to ESF may apply to a variety of programs at Syracuse which may include the **biological sciences** (botany and forest pathology, entomology, zoology, wildlife biology, silvics, pest management); **chemistry** (natural and synthetic polymers, biochemistry and natural products, environmental); **forest engineering, paper science and engineering; wood products engineering; and forestry** (resource management, forest resource science, management science, environmental forestry, applied resource management). The program in **landscape architecture** leads to a B.S. degree in environmental studies and, after one additional year, a Bachelor of Landscape Architecture degree.

Persons planning to transfer should follow the program requirements in consultation with BCC's Pre-Environmental Science and Forestry campus advisor for selection of electives which may vary according to the curriculum at ESF.

Successful graduates of Broome Community College's Pre-Environmental Science and Forestry Program generally gain admission to the SUNY College of Environmental Science and Forestry with full junior class status.

Contact Anthony Lotempio (Science Building, Room 216).

## ARTICULATION AGREEMENTS

Broome Community College has special articulation agreements with many 4 year colleges for the purpose of gaining as many transfer credits as possible for BCC graduates who wish to study at those schools after completing their studies at BCC. Students are encouraged to contact their divisional dean or the Counseling and Student Development Center for more information.

## GUARANTEED TRANSFER PROGRAM WITH STATE UNIVERSITY OF NEW YORK

Students who graduate from Broome Community College with Associate in Arts or Associate in Science degrees are guaranteed admission at the third-year level, to a four-year college of the State University of New York. This guarantee has some limitations, and details are in the Counseling and Student Development Center (Wales Building, Room 200).

## ONE-PLUS-ONE PROGRAMS

Broome Community College has One-Plus-One Programs with other two-year colleges to enable a student to attend BCC for one year and then transfer to the other college for the second year for the Associate in Applied Science degree. This program permits students to begin studying at BCC for a degree in a field not offered at this college. By taking the BCC courses that one needs for the particular degree involved, residents of Broome County can enjoy the advantage of living at home during one year of their college attendance. Students taking these One-Plus-One Programs are Liberal and General Studies students at Broome Community College because most of the courses they take at BCC are Liberal and General Studies courses.

Check with the Liberal and General Studies Office for more information about these programs.

## THREE-PLUS-ONE PROGRAM

Broome Community College has a Three Plus One Program with the Department of Nursing at SUNY - Brockport. After completion of the AAS degree in Nursing at Broome Community College, students take additional courses at Broome Community College during the third year. After successfully completing entrance exams, the student is admitted to SUNY - Brockport for completion of the Bachelor of Science in Nursing degree.



# SPECIAL TRANSFER PROGRAMS

Broome Community College graduates will be able to transfer to a wide range of baccalaureate programs and institutions. Listed below are some colleges with whom BCC has special arrangements.

Contact the Admissions Office at Broome, the appropriate department chairperson, and/or the transfer counselor in the Counseling and Student Development Center for specific information on course requirements. Many four-year colleges require specific grade point averages for transfer and eligibility.

## Association of Engineering Colleges of New York State Engineering Science

### Bentley College

Accounting, Computer Information Systems, Economics, Finance, Law, Management, Marketing, Quantitative Analysis

### Clarkson University

School of Management

### College of St. Rose

All AA, AS degree

### Cornell University (College of Human Ecology)

Human Development and Family Studies

### Fairleigh Dickinson University

AAS Degree in Civil, Electrical, Mechanical Engineering Technology

### LeMoyne College

Any baccalaureate degree program with AA or AS in Liberal and General Studies, Business Administration, Engineering Science

### Marist College

Parallel programs in Business (Marketing, Management) Accounting, Engineering Technology, (Civil, Electrical, Industrial and Mechanical)

### St. John Fisher College

AA, AS degree programs, Liberal and General Studies, Business Administration, Engineering Science

### Rochester Institute of Technology

AA, AS, AAS degree

### SUNY College at Binghamton

Watson School of Engineering, Harpur College

### SUNY College at Brockport

Business Administration, Criminal Justice, Liberal and General Studies and LGS Mental Health Emphasis degrees will be accepted in Brockport's Recreation and Leisure degree program

### SUNY College At Cortland

Elementary Education, Computer Science

### SUNY College of Environmental Science and Forestry

Biological Sciences  
Chemistry  
Construction Option (Civil)  
Landscape Architecture  
Forest Engineering  
Paper Science and Engineering Wood Products

### SUNY College at Fredonia

AA degree into Business Administration or Liberal and General Studies or Radio and Television.

AS degree into Math, Physics, AAS in Early Childhood into Early Childhood Education

### SUNY College At Oneonta

AAS in Accounting, Marketing, Management, Data Processing, And AS in Computer Science

### SUNY College At Oswego

Business Administration  
AAS in Vocational- Technical Education (Civil)

### SUNY College at Plattsburgh

Any Associate Degree that leads to a baccalaureate program

### SUNY College at Potsdam

Any Associate Degree that leads to a baccalaureate program

### SUNY College at Purchase

AA, AS degree programs in Liberal and General Studies

### SUNY College of Technology (Utica)

AAS in Business, Electrical, Civil and Mechanical Engineering Technology, Industrial Technology, Nursing.  
AS in Computer Science, Engineering Science, Liberal and General Studies.  
AA in Liberal and General Studies.

### Syracuse University

School of Management, Engineering Science

### Trinity College

AA, AS, AAS degrees, concentrates on Liberal and General Studies, Sciences, Business Administration, Engineering Science

### SUNY Health Science Center at Syracuse

Cytotechnology, Medical Technology, Physical Therapy

### Utica College of Syracuse University

AA, AS graduates in following concentrations - Liberal and General Studies, Business Administration, Engineering Science

### Waynesburg College

AS degree graduates accepted, transfer credits determined on individual basis

### Wilkes College

Accounting, Business Administration, Computer Science, Engineering Science, Liberal and General Studies, Nursing

### Roger Williams College

AS degree graduates accepted. transfer credit determined on individual basis





# ACADEMIC REGULATIONS

## GRADING INFORMATION

Because this grading policy went into effect for the Fall Semester of 1979, grades earned by students at the college prior to that date will remain as recorded.

Honor Points		
Grades	Per	Explanation
A	4	Outstanding achievement of course objectives
B	3	Significant achievement
C	2	Satisfactory achievement
D	1	Minimal satisfactory achievement
F	0	Failure to meet course objectives or dropped after 10th week
S	-	Satisfactory
U	-	Unsatisfactory
W	-	Withdrawn from a course between the 5th and 10th weeks inclusive (See "W" Grade below)
I	-	Incomplete due to special circumstances (See "I" Grade next column)
IP	-	"In Progress"-for courses in which student is permitted more than one semester to complete.
AU	-	Audit
T	-	Transfer credit from an accredited college

### "S", "U" AND "IP" GRADES

The S or U grade and IP grade will apply only to specific courses determined by the appropriate departments and approved by the Vice-President for Academic Affairs. Such courses will not affect the Grade Point Average (GPA).

### "W" GRADE

It is the student's responsibility to initiate action to receive a grade of W between the 5th and 10th weeks inclusive. If no action is taken before the 11th week and the course is dropped, an F (or U) will be entered on the transcript. For less than full semester courses, a proportional time to withdraw with a "W" grade will be determined. For example, 7 ½ week courses, an F (or U) will be entered on the transcript if the course is dropped after the 5th week. For 5-week modules an F (or U) will be entered on the transcript if the module is dropped after the 17th class. Students who withdraw from a class may not continue to attend that class.

### "I" INCOMPLETE GRADE

A student who receives an I grade shall, within two weeks after the last class of that semester, contact his or her instructor to arrange for completion of unfinished work, in accordance with agreed upon time limits that are not to exceed one year. The instructor will then notify the registrar of the arrangements and after the student has completed the work, of the subsequent grade to be assigned. If the student does not meet the time limit, the instructor shall direct the registrar to record the appropriate grade.

If the student does not contact the instructor during the two-week period at the end of the semester, the registrar shall record the appropriate grade as directed by the instructor.

### AUDIT

The term "Audit" shall not be considered a grade but and "opportunity." For persons auditing a course, the letters AU will appear next to the course name on the transcript with a message statement explaining the meaning of the designation. (No grade shall appear in the grade column on the transcript.)

Students are encouraged to use the option of taking courses on an audit basis. A student may not receive credit for it later, unless he/she re-registers in the courses or challenges it according to the existing rules for credit-by examination.

Students who register in a course for audit are expected to have the necessary prerequisites: In this respect students are encouraged to make full use of the College's counseling services, but the ultimate decision whether or not to enroll for audit shall be the student's responsibility. Consideration may be given to a student's request for transfer from credit to audit status or vice versa. The end of the third week of classes is the deadline for such transfer.

**Full-time students** may audit courses with no additional charge, but they need approval of their department chairperson. **For part-time students**, the regular tuition schedule applies (see page 14). New York State residents who are **60 years of age or older** may audit courses without charge on a space available basis.

### REPEATING COURSES

If a course is repeated, the higher grade will enter the cumulative grade point average. If a required course is failed, the department or the dean may allow the student to substitute an equivalent or similar course, rather than repeat the failed course. In such cases the higher grade will enter the cumulative grade point average. All grades will appear on student's transcript.

### GRADE POINT AVERAGE

Each grade carries a specified number of honor points - 4 for an A, 3 for a B, 2 for a C, 1 for a D. To determine one's grade point average, multiply the number of honor points earned, according to the letter grade, by the number of credits for the course. Add these together and divide the sum by the total number of credits taken.

For purposes of graduation eligibility, only those courses required for the degree will be included in the calculation of the grade point average (GPA).

The GPA is fixed as of graduation and any courses taken after that will not change the graduation GPA and will not be entered into the previous GPA in any way. Cumulative GPA will reflect all courses that are not starred on the transcript.

### PRESIDENT'S LIST AND DEAN'S LIST

Full-time students who have a semester grade point average 3.80 or better will be named to the President's List. Such students must successfully complete a minimum of 12 credit hours. Courses which use the S or U or credit equivalent grade may not be among the 12 hours.

Full-time students who have a semester grade point average between 3.50 and 3.79 inclusive will be named to the Dean's List. Such student must successfully complete a minimum of 12 credit hours. Courses which use the S or U or credit equivalent grade may not be among the 12 hours.

Part-time students can earn a place on the President's or Dean's List by having the appropriate cumulative grade point average for their most recent semesters that include at least 12 credit hours. Courses which use the S or U credit equivalent grade may not be among the 12 hours. Part-time students should contact the Registrar's Office if they have the appropriate grade.

### GRADUATION WITH HIGH HONORS OR HONORS

Students who graduate with a cumulative grade point average of 3.80 or better will receive the distinction of graduating with "High Honors" and those who graduate with a cumulative grade point average between 3.50 and 3.79 inclusive will graduate "with Honors."



## CREDIT EQUIVALENT

Some courses at Broome Community College carry "credit equivalents." This means that they do not give a student credit toward a degree at the college, but they are equivalent to the appropriate number of credits for one's academic load. This credit load is used, to cite some examples, for determining a student's status as full-time or part-time, for financial aid, for billing, and for academic standing. Four courses carry these equivalent credits for the 1988-89 college year - ENG 090 Basic Language Skills, MAT 090 Basic Mathematics Review, RDG 090 Reading Fundamentals, RDG 092 College Preparatory Reading.

## RETENTION

The college has begun a study to determine how many of its students eventually graduate either from Broome or other colleges to which they transfer.

Early indications show that the number of students completing academic programs at Broome is steadily rising. In recent years, the graduation rate is estimated to have exceeded 50%, covering all programs. In some fields, especially the engineering technologies, the graduation rate appears to be greater, reaching as high as 65% to 70% of the entering class.

Another survey of students receiving financial aid was completed in Spring 1984 and indicated even more positive outcomes, with 65% of students graduating from all programs.



## POLICY OF STANDARDS FOR ACADEMIC PROGRESS\*

In order to be in good academic standing and to be making academic progress toward a degree or certificate, a student must meet a minimum cumulative grade point average and successfully accumulate credits according to the following standards:

### 1) GRADE POINT AVERAGE

Credits Attempted	Minimum Cumulative GPA
0-20	1.50
21-40	1.75
41-upward	2.00

### 2) SUCCESSFUL ACCUMULATION OF CREDITS

Students must successfully pass ("D" grade or better) a total number of credits according to the following standard:

Credits Attempted	Credits Completed
20	12
40	24
60	36
80	48
100	60

By the time a student has attempted 20 credits, he/she must have successfully completed 12 credits. Likewise, 40 credits trigger the 24 credit minimum requirement.

## PROBATION

Student's records will be reviewed at the end of each semester. Students who have not met the minimum standards will be placed on probation. A student will have one semester to achieve the minimum standards before facing dismissal. During this probationary time, the student is expected to follow a probation contract outlined with his/her advisor, department chairperson or division dean.

## DISMISSAL FROM THE COLLEGE

If a student does not meet the minimum standards during the probationary semester, the student will be dismissed from the college after the probationary semester. If a student achieves a 2.00 semester grade point average and satisfies the accumulation of credits requirement while on probation, but fails to meet the minimum cumulative GPA, he/she will be given an additional semester of probation. Probation will continue as long as the student continues to achieve a semester grade point average of at least 2.00.

**DISMISSAL REVIEW:** Verified medical, psychological or personal reasons directly contributing to the student's academic failure may be considered by the divisional dean for a waiver of dismissal. In addition, the dean may reinstate students at his/her discretion based on recent dramatic improvements in performance but which still leave a student with cumulative credit or GPA deficiencies. This requires a petition to the dean.

**REVIEW BASED ON SUMMER ENROLLMENT:** Students are encouraged to take summer courses to improve their academic standing for the fall semester. Any student who enrolls in summer courses may request the dean or department chairperson of his/her program to review his/her probation or dismissal status prior to the start of the fall semester. The student must obtain documentation of his or her summer grades prior to this review.

**READMISSION:** To be eligible for readmission as a full-time matriculated student following dismissal, the student must take two courses (5 to 9 credits and/or credit equivalents) in one semester and receive at least a "C" in each course. These courses must be approved by the dean or department chairperson of the program to which the student is applying for readmission. Readmitted students may also be required to meet with a member of the Counseling and Student Development Center (Wales Building, Room 200) for assistance on a regular basis as established by the student and the counselor.

## DISMISSAL, READMITTANCE FOR DEGREE PROGRAMS

A student must demonstrate discernible progress toward the achievement of a degree in a given program of study. If a student fails one or more introductory courses in a major sequence, as determined by the department, he/she may be dismissed by the department from that program of study-but not necessarily from the college.

To be considered for readmission to the program the student must meet with the appropriate department chairperson who will make the determination. Students must also meet with a counselor prior to being readmitted so that a program of assistance may be established by the counselor. The signature of the counselor must be on the petition form for readmittance. In the case of programs that have limited space for freshmen, the Admission Office shall notify the student of his/her readmittance into the program and adjust accordingly the number of spaces available for new freshmen. A maximum of 10% of the total number of available spaces for freshmen in a program may be used for readmitted students.

This policy applies to the following 11 programs - Dental Hygiene, Engineering Science, Medical Assisting, Medical Laboratory Technology, Nursing, the Office Technologies curriculums of Executive Secretary, Office Services Assistant, Word Processing and Office Technologies Certificate, Radiologic Technology.

\* The Policy of Standards for Academic Progress was under review when this Catalog was published. Please see the "Broome Community College Student Handbook" for the revised policy.



## ATTENDANCE REGULATIONS

Colleges throughout the nation have found that students who regularly attend classes have a better success record than students who do not regularly attend classes. With the intent of encouraging student success, B.C.C. strongly urges students to regularly attend their classes. In fact, the College's policy is that a student is expected to come to all class sessions prepared to participate in an appropriate manner. Absence from class is considered a serious matter and never excuses a student from classwork. A student must complete all assignments, examinations, and other requirements of any course to receive credit.

The college understands, however, that students sometimes through uncontrollable circumstances, are absent from classes. In these cases, the students need to meet with their instructors to discuss missed work.

## SPECIFIC RESPONSIBILITIES

**Student Responsibility:** Class attendance is a measurable commitment by the student toward meeting individual responsibility for his/her own education. Should a student miss a class, it is the student's responsibility to make up any work regardless of reason for absence. Students should work with the instructor and/or the Counseling and Student Development Center to help resolve reasons for absences.

**Instructor Responsibility:** Each instructor is responsible for relating the significance of attendance to the course objectives and to inform the students of this significance in the first class meeting. When absences occur, instructors are encouraged to discuss reasons with the student. If the reasons are beyond the student's control, instructors are encouraged to discuss with the student ways to solve the problem, including referral to the Counseling and Student Development Center.

**Department Responsibility:** Within the spirit and framework of college policy, each department may develop its own guidelines to meet its needs. Such guidelines are subject to the approval of the Vice-President for Academic Affairs.

**NOTE:** Some developmental courses have strict attendance requirements, whereby students may be de-registered from the class for poor attendance. This de-registration may result in a loss of financial aid. The consequences of this may necessitate that the student return financial aid monies to the college. Consult course outline and/or instructor for further details.

## DEREGISTRATION FOR NON-ATTENDANCE

The college reserves the right to administratively deregister a student for a course(s) based on lack of attendance as reported by the instructor of the course on the Official Section Attendance Sheet. Students who have never attended the section or have not attended after the census date (first day of the fourth week of classes for full-term courses) will be deregistered from the course by the Registrar's Office and notified of this action which may result in a loss of financial aid.

## STUDENT CHEATING

An instructor has the prerogative of failing a student who has cheated on an exam, quiz, paper, project, report, etc. for that exercise only. Students who cheat a second time risk failure for the entire course and additional disciplinary action, including the possibility of dismissal from college.

## STUDENT ACADEMIC APPEAL PROCEDURE

Broome Community College has established a procedure to provide students an opportunity to appeal grades in any particular course(s) or academic dismissal. Copies of the Student Academic Appeal procedure are available in the offices of the Divisional Deans, and the policy also appears in the Student Handbook.

## WITHDRAWAL FROM THE COLLEGE

Broome Community College has committed itself to a philosophy of providing whatever assistance is necessary to aid the student in completing his/her academic goals. Students are strongly encouraged to seek academic and personal counseling prior to any withdrawal.

Students who decide to withdraw from the college must obtain a signed drop form from their department and complete a withdrawal form. The withdrawal form is available in the Counseling Center. Failure to comply may cause the individual to lose any possible refund fees.

## LENGTH OF CURRICULUM

Most associate degree programs are designed to be completed in two years. The college year is divided into two semesters of 15 weeks each plus an evaluation week. Some students may choose or be required to take more than four semesters to earn their degrees. Radiologic Technology students, for example, have special clinical laboratory experiences in the summer of both their freshman and senior years.

## LATE REGISTRATION POLICY

Late registration for credit courses will be permitted through the Friday of the first week of classes (each semester/summer term). To be registered is distinct from changing a student's course schedule through the drop/add process.

## WITHHOLDING OF GRADES

Student's Grades and Official College Transcripts will be withheld if there are outstanding financial or property-returning obligations. These could be to such college offices as Security, Learning Resource Center (Library), Student Accounts, Physical Education, as well as others. Students must settle any such outstanding debts to the college and then present evidence of the settlement to the Office of the Registrar, after which their grades will be distributed.

## INDEPENDENT STUDY

Many academic departments of the College offer "Independent Study" courses which are arranged between an individual faculty member and a motivated student. The student has the responsibility to make appropriate arrangements with a faculty mentor and to secure the permission of the department chairperson before registering for independent study.

A student may not take more than one Independent Study course per semester.

Independent Study courses are not intended to replace regular courses which the student was unable to schedule or which he/she did not complete. Rather, these courses provide an opportunity for the serious student who desires to expand his academic background beyond the scope and the depth usually found in a regular course. (See course description section for offerings.)



## DECLARATION OF GRADUATION CANDIDACY

Students intending to complete all degree requirements within a given semester are required to declare their intention to do so by filing a Request for Graduation Check-out with the Office of the Registrar. This form can be obtained from the Registrar's Office and must be submitted by the declaration date announced (generally the beginning of the term).

## GRADUATION

Broome Community College will conduct one formal graduation ceremony each year in the spring. All candidates for degrees may participate in the ceremony. A candidate is a student who will complete his/her degree requirements at the conclusion of the spring or summer semester. Candidates must have declared their intention to graduate and have been recommended as candidates by the Chairperson of Academic Department. Students who complete their degree requirements at the end of the fall semester will be invited to attend the next graduation ceremony.



## ABSENCE DUE TO RELIGIOUS BELIEFS

Section 224-a of the State Education Law reads:

1. No person shall be expelled from or be refused admission as a student to an institution of higher education for the reason that he is unable, because of his religious beliefs, to attend classes or to participate in any examination, study or work requirements on a particular day or days.

2. Any student in an institution of higher education who is unable, because of his religious beliefs, to attend classes on a particular day or days, be excused from any examination or any study or work requirements.

3. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school, because of his religious beliefs, an equivalent opportunity to make up any examination, study or work requirements which he may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to the said student such equivalent opportunity.

4. If classes, examination, study or work requirements are held on Friday after 4 p.m. or on Saturday, similar or makeup classes, examinations, study or work requirements shall be made available on other days, where it is possible and practicable to do so. No special fees shall be charged to the student for these classes, examinations, study or work requirements held on other days.

5. In effectuating the provisions of the section, it shall be the duty of the faculty and of the administrative officials of each institution of higher education to exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section.

6. Any student, who is aggrieved by the alleged failure of any faculty or administrative officials to comply in good faith with the provisions of this section, shall be entitled to maintain an action or proceeding in the supreme court of the county in which such institution of higher education is located for the enforcement of his rights under this section.

6-a. A copy of this section shall be published by each institution of higher education in the catalog of such institution containing the listing of available courses.

7. As used in this section, the term "institution of higher education" shall mean schools under the control of the Board of Trustees of the State University of New York or of the Board of Higher Education of the City of New York or any community college.

## PROGRAM-IDENTIFYING NUMBERS

State regulations require a listing of all curriculums, together with the degrees they lead to and their HEGIS code numbers. HEGIS stands for Higher Education General Information Survey, and the HEGIS numbers for each curriculum are official federal and state designations. Enrollment in other than registered or otherwise approved programs may jeopardize a student's eligibility for certain aid awards.

HEGIS	Degree	Curriculum			
5001	CERT	Business Skills	5213	AAS	Medical Record Technology
5002	AAS	BUS-Accounting	5214	AAS	Medical Assistant
0506	AS	BUS-Business Administration	5305	AAS	Chemical Engineering Technology
5004	AAS	BUS-Marketing Management & Sales	5309	AAS	Civil Engineering Technology
5005	CERT	Office Technologies	5310	AAS	Electrical Engineering Technology
5005	AAS	BUS-Secretarial Science-Word Processing	5312	CERT	Industrial Technology
5005	AAS	BUS-Secretarial Science-Executive Sciences, Office Services Assistant	5312	CERT	Industrial Technology - Industrial Safety & Occupational Hygiene
0508	AAS	Hotel and Restaurant Technologies	5312	CERT	Machinist Related Instruction
5008	AS	Communication and Media Arts	5312	AAS	Industrial Technology
5012	CERT	Interior Design	5312	AAS	Industrial Technology - Industrial Safety & Occupational Hygiene
5099	CERT	Paralegal Assistant	5312	AOS	Tool and Die Making
5099	AAS	Paralegal Assistant	5315	AAS	Mechanical Engineering Technology
5099	AAS	Travel and Tourism	5404	CERT	Dietary Manager
5101	AS	Computer Science	5503	CERT	Child Care
5101	AAS	Data Processing	5503	AAS	Child Care
5104	AAS	Computer Technology	5505	CERT	Criminal Justice
5203	AAS	Dental Hygiene	5505	AAS	Criminal Justice - Police
5205	AAS	Medical Laboratory Technology	5507	CERT	Fire Protection Technology
5207	AAS	Radiologic Technology	5507	AAS	Fire Protection Technology
5208	AAS	Undergraduate Nursing	0901	AS	Engineering Science
			4901	CERT	Liberal and General Studies
			4901	AS	Liberal and General Studies
			4901	AA	Liberal and General Studies
			4901	AS	Individual Studies
			4901	AAS	Individual Studies

NOTE—"CERT" means certificate, not a degree.





# ACADEMIC PROGRAMS

## GENERAL EDUCATION: COMMON REQUIREMENTS

As part of its commitment to provide every graduate with the skills and knowledge essential to a full and productive life, Broome Community College has developed an integrated program of general education for every course of study. However diverse their academic curricula and personal goals, General Education serves to acquaint students with the concerns and obligations common to all citizens of a democratic society, and it seeks to equip them with the intellectual skills and dispositions to participate effectively in public life.

Broome Community College's General Education program aims to ensure that each graduate will:

1. Communicate effectively orally and in writing
2. Think clearly and critically
3. Become sensitive to the ethical dilemmas of daily life and experienced in moral reasoning and discourse
4. Embrace one's civic obligation to be informed about and participate in public affairs
5. Acquire a global and international outlook
6. Gain facility in mathematical analysis, and knowledge of scientific and technological concerns, procedures, achievements and consequences
7. Understand and apply the elements of good health and physical fitness.

These goals are pursued in a variety of contexts: in courses which all students are

required to take such as ENG 110 and 220 and writing emphasis ("W") courses, in a range of social science and humanities courses, in mathematics and science courses, and in technical courses in business, health sciences, and technology.

Listed below are the specific General Education requirements with the seven objectives above shown in parentheses

- English 110 or 110T . . . . . (Objectives 1,2)
- English 220 . . . . . (Objectives 1,3,2)
- Two writing emphasis "W" courses . . . . . (Objectives 1,2)
- Two Social Science courses.  
One of these must be from a designated "civic education" list\* . . (Objectives 4,5,2)
- Mathematics and science courses per curriculum requirements . . . . (Objectives 6,2,4)
- Physical education requirements per curriculum . . . . . (Objective 7)

\*ECO 110/111, HIS 130/131, POS 201/204, SOC 110/111, SOS 111/120

**These General Education requirements are built into the degree programs which are displayed in the pages which follow. However, each student is responsible for making sure that she/he has met all General Education requirements for the AA, AS, and AAS degrees. For further information students should seek assistance from their advisors and/or chairpersons and deans.**





# LEARNING ASSISTANCE CENTER

Department Chairman, Steven Natale  
1st Floor Cecil C. Tyrrell  
Learning Resource Center  
Telephone 771-5038

Students entering college may not have the appropriate preparation for the Associate Degree they seek - for example, when a person changes careers, returns to school after several years, or needs to upgrade particular academic skills.

BCC's Learning Assistance Center is committed to helping students realize their goals regardless of prior academic preparation. The Center has courses and activities available for students and works closely with the Admissions and Financial Aid Offices, The Counseling and Student Development Center and Educational Opportunity Program personnel to provide a supportive environment for learning.

**DIAGNOSTIC TESTING**—The Learning Assistance Center administers three tests to every entering full-time student in reading, writing and mathematics. Part-time students are also encouraged to take these tests.

**COURSE PLACEMENT**—The Learning Assistance Center uses the information gained from these tests to recommend and, in some cases require students to take developmental courses that are most appropriate to his/her program of study. Every effort is made to place students in courses in which they can succeed. Students with serious deficiencies will be required to enroll in appropriate non-credit courses.

**DEVELOPMENTAL COURSES**—Various courses are offered through the Center for those desiring skill improvement or review. Some of these carry credit; others do not. The non-credit courses listed below prepare students for credit level work in the basic skill areas of mathematics, writing and reading. These non-credit courses are equivalent in time to credit bearing classes and are applicable toward financial aid and athletic eligibility.

	Courses	Credit or Equivalent	Catalog Page
ENG 090	Basic Language Skills	0 or 3*	100
MAT 090	Basic Math Review	0 or 3*	106
RDG 090	Reading Fundamentals	0 or 3*	120
RDG 092	College Prep Reading	0 or 3*	120
RDG 094	College Vocab Skills	0 or 2*	120
RDG 095	Language Arts/Hearing Impaired	0 or 3*	120

Other developmental courses maybe credit bearing. Students should pay close attention to catalog information pertaining to these courses and should consult their department chairpersons or Learning Assistance personnel about the acceptability of credit in a particular degree program.

	Courses	Credit or Equivalent	Catalog Page
BIO 102	Preparatory Biology	4	83
CHM 102	Preparatory Chemistry	4	86
LRS 101	Study Management	.5	120
LRS 102	Memory and Exams	.5	120
LRS 103	Textbook Mastery	.5	120
LRS 104	Listening and Notetaking	.5	120
LRS 105	Learning Skills	2	120
LRS 110	The Research Paper	1	120
LRS 120	The Art of Thinking	1	120
LRS 130	Intro to Micro-computers and Word Processing	2	120
LRS 140	Intro to Dental Hygiene	0 or 2*	120
PHY 100	Preparatory Physics I	4	117
PHY 101	Preparatory Physics II	4	117
SAC	Human Development Courses	2-3	104

**DROP-IN ASSISTANCE**—Learning Assistance Center specialists help students with short-term academic difficulties, such as writing a term paper, reading a difficult textbook, or solving a complex math problem. The staff encourages students to drop in to the Center for this type of assistance.

**TUTORING**—When a student experiences more serious academic difficulty and is in danger of failing a course, he/she may apply to the Center for peer tutorial assistance.

Located in the Cecil C. Tyrrell Library, the Center is open from 8:30 a.m. to 4 p.m. In addition, evening hours are posted each semester. Detailed brochures describing the various programs are available at the receptionist's desk in the Center.



**NOTE:** ENG 090, MAT 090, RDG 090, RDG 092, RDG 094, and RDG 095 have strict attendance requirements, whereby students may be de-registered from the class for poor attendance. This de-registration may result in a loss of financial aid. Consult course outline and/or instructor for further details.

## STUDENT SUPPORT SERVICES PROGRAM

With an open door admissions policy, Broome attracts many students with varied needs. The Student Support Services Program provides assistance to a percentage of these students who have experienced difficulty in achieving academic success. The program is aligned under the Academic Affairs Division and works closely with the Learning Assistance Center.

The Student Support Services Program provides a variety of support services to students who qualify. These services include: academic advisement, tutorial assistance, diagnostic test interpretation, transfer information, referrals, notetaking and reading services for the handicapped, a peer counseling program, and other student services.

The office is located in the library, room 101, and is open from 8 a.m. to 5 p.m. Phone number 771-5234 (TTY).

## BCC FOUNDATION

The Broome Community College Foundation, Inc. is a not-for-profit corporation that raises private funds to assist BCC students through grants, scholarships, and loans. It also helps students by supplying funds for programs and projects for which public dollars are unavailable or insufficient. Providing faculty development funds to help faculty members attend workshops and seminars and to take graduate courses is an example of the use of these special funds.

In addition to accepting direct cash gifts, the Foundation serves as the administrative conduit for all-in-kind gifts to the College. Equipment, books and works of art are examples of material received by the College through the Foundation. All gifts to the Foundation, whether cash, securities or material, are tax deductible.

## ALUMNI

The Broome Community College Alumni Association provides the link between the College and its alumni. Any former student may become a member by paying the modest lifetime dues of \$25.

The Office of Alumni Affairs, which is located in the Wales Building (Room 107) serves as a liaison between the College, its faculty, administration and 22,000 alumni. The office coordinates the total alumni effort and works closely with the Alumni association Board of Directors.

Membership in the Alumni Association gives alumni the opportunity for group life insurance, travel programs, discount buying programs, as well as a variety of social and cultural activities throughout the year.



# COUNSELING AND STUDENT DEVELOPMENT CENTER

The Counseling and Student Development Center provides many services for students, whether they are enrolled full-time or part-time, day or evening. Specialized counseling is also available for the international, disabled, career undecided and academically dismissed students. All students can meet with counselors in a helpful and informal atmosphere as they seek to develop their potential, form realistic goals, and understand themselves emotionally and intellectually. The Center is equipped to help students:

1. Understand their basic needs in terms of social, vocational and emotional adjustment to the college setting.
2. Establish realistic educational goals and appropriate methods of achieving them.
3. Assess their strengths and weaknesses to enable them to more effectively deal with academic and personal problems.
4. Better understand their role and that of the College in the higher educational process.
5. Obtain information about transfer and career opportunities, as well as assistance with academic problems.
6. Grow in their personal development and determine appropriate values through instruction in human development courses.

The Counseling and Student Development Center, located on the second floor of the Wales Building is staffed by professional counselors. The Center is open from 8 a.m. to 8 p.m., Monday through Thursday, and 8 a.m. to 5 p.m. Friday during the academic year. Students should become acquainted with the Center by stopping in at their convenience or calling 771-5210 for an appointment. A special brochure is available at the Center, giving details about the services.

## CAREER AND LIFE PLANNING

Broome Community College offers an opportunity for students to explore interests, strengths and values in both an individual and group setting. Knowing as much as possible about oneself is the first step in understanding goals related to self fulfillment and to the world of work. The Counseling and Student Development Center can help in the process of self-evaluation and has information on career possibilities, audio-visual aids, testing procedures and techniques used in the process of exploring career fields and making career decisions. Counselors work closely with the College's Placement Center staff in offering students a comprehensive approach to career planning.

## PERSONAL COUNSELING

Counseling is available for students experiencing social, personal and family concerns. Counselors attempt to help students face problems with an holistic approach. Assistance is given in both direct and indirect ways, by exploring, understanding and dealing with tasks and crises related to the problems being experienced. Counselors may

make referrals to appropriate community agencies, if that should be necessary and mutually agreeable. All counseling is strictly confidential.

## ACADEMIC COUNSELING

Counselors are available to help students put their academic efforts into the proper perspective by analyzing their study, social and work habits to enable them to utilize their time in the most efficient way.

## TESTING

The Counseling and Student Development Center offers students the opportunity to engage in a testing program. When appropriate, it can be arranged for a student to take a variety of tests including personality and interest inventories. Cognitive style mapping is also available to help students better understand their individual learning preferences. The tests can help students develop self awareness and improve their decision-making ability. The Counseling Center also administers the ACT test and other professional career tests.

## HUMAN DEVELOPMENT COURSES

Courses are offered which provide students with an opportunity to examine their values, attitudes, beliefs and abilities. The courses also offer an opportunity to learn how these factors affect the quality of relationships with others. In addition, the students examine the challenge and problems of society as they relate to their development. The Career Exploration, Human Potential, and Individual in a Changing Society will be transferable for credit. See page 77 for course descriptions.

## ORIENTATION PROGRAM

Although the Office of Student Activities co-ordinates the college wide orientation program, the Counseling and Student Development Center takes an active role for providing a comprehensive orientation program for the freshman, transfer and re-admitted students. Sessions involving familiarization with the campus and the services available and discussion regarding adjustment to college life are coupled with social and cultural activities to make for a meaningful orientation. Orientation takes place prior to and during the acceptance into the College and all information concerning the activities will be mailed to all students prior to the beginning of the Semester.

The staff of the Counseling Center together with the entire division of Student Affairs endorses the concept that a community college environment should facilitate the development of the whole student.

## SPECIAL WORKSHOPS AND SEMINARS

The Center offers a variety of workshops and seminars throughout the college year. Those that have been offered cover such topics as relaxation techniques career exploration, cognitive style mapping, returning to college, and assertiveness training.

## PROGRAM FOR PEOPLE OVER 60

Any citizen of New York State who is 60 years of age or more may "audit" courses at Broome Community College without charge, as long as there is space available. In this connection the word "audit" means these students take the course by attending classes and being exposed to all the work given in class and assigned in the text. They do not have to do the homework or take the examinations, however, and they receive no letter grade or college credit.

## VETERANS

The Counseling and Student Development Center administers and supervises the Office for Veterans Affairs. Located in the Wales Building (Room 111) the Veterans coordinator assists veterans in their certification for benefits and in those matters related to the Veterans Administration. The Coordinator works closely with the Counseling staff in referring students requiring counseling services.

## TDD/TTY TELEPHONES

A TDD/TTY telephone unit is available in the Counseling and Student Development Center to make it accessible for the hearing impaired. The number is 771-5210. The College also has one in the Admissions Office (771-5001).

## SUPPORT SERVICES FOR DISABLED STUDENTS

**Coordinator - Bruce Pomeroy**  
**Student Support Services Program**  
**Library, Room 101**  
**Telephone 771-5210 TDD/TTY 771-5234**

In addition to regular student services on campus disabled students entering college may receive special assistance. The Office for the Disabled provides these students additional help in achieving their educational goals.

Such services as interpreters, readers and notetakers are available, and adjustments for program accessibility like re-scheduling classes and elevator use are also arranged. Through the Student Support Services Office in the Learning Assistance Center, students may obtain and use various aids including the Visualtek Machine, light magnifiers, tape recorders, projectors, large print reading materials and taped books.

Broome Community College is committed to meeting the support needs of its disabled students. However, auxiliary services such as notetakers, taped books, and special testing provisions require advanced planning to be implemented as smoothly as possible. The College urges any student who has need of educational support services to give the Coordinator for Disabled Students Services as much advanced notice as possible. This will allow Broome Community College to have quality support services in place at time of the



student's needs. Phone 771-5234 (TTY), or write Student Support Services c/o Broome Community College.

In order to avoid the duplication of services and to assure that disabled students at Broome Community College receive all the auxiliary aids for which they qualify as speedily and as efficiently as possible, the College requires that any disabled student who is to receive college assistance attempt to enroll with appropriate federal and state agencies (e.g. the Office of Vocational Rehabilitation and the Veteran's Education Assistance Agency). The Coordinator for Disabled Students Services is available to assist any student who requests in applying to state and federal agencies.

## COUNSELING

All students, disabled or not, may receive counseling through the Counseling and Student Development Center. In addition, life skills courses are available to help students clarify career and education goals.

Counselors, are also available to discuss problems with drugs, alcohol, school, family, career, education, transfer and personal concerns. For all of these counseling services, students should contact at the Counseling Center, (771-5210). All services at the Counseling Center are confidential. For other issues related to disabilities, please call the Student Support Services Office. (771-5150) (771-5234 TTY)

A TDD/TTY telephone unit is available in the Student Support Services Office and the Counseling and Student Development Center to make them accessible to the hearing impaired. The respective numbers are 771-5234, and 771-5210 (Voice/TDD/TTY).

## TRANSFER TO 4-YEAR COLLEGES AND UNIVERSITIES

Broome Community College has developed a fine reputation for its successful preparation of students for study at senior institutions. Students desiring to continue their education are encouraged to consult with a counselor in the Counseling and Student Development Center, their faculty advisor, department chairperson or dean for assistance in selecting a program and/or institution that is appropriate to their goals abilities and aspirations.

To these ends, the College conducts the Transfer Emphasis Program, which consists of visits to the campus by representatives of four-year schools to recruit and advise potential transfer students. These visits occur each semester, and they are designed to expedite the information process, necessary to insure a smooth transition between community college and various four-year programs. The representatives, generally from admissions offices, discuss life on their campuses, financial assistance possibilities and activities available, in addition to the traditional explanations of all their academic programs.

Applications for the **State University of New York** colleges and university centers are available in the Counseling and Student Development Center. Students should apply directly to all **other colleges** (non-SUNY units) by requesting an application and any other pertinent data from the admissions office of the desired college.

All student should arrange at the BCC Registrar's Office to have copies of their transcripts forwarded to the admissions office of the colleges to which they are applying. This will insure proper transfer of applicable credits. Any requests for references and recommendations may be forwarded to the Counseling and Student Development Center, and all acceptances and rejections of applications should also be reported to the Center.

Any questions or problems regarding transfer should also be directed to the Counseling and Student Development Center. For information on special transfer opportunities, see pages 18 and 19.



## STUDENTS FROM OTHER NATIONS

The College welcomes and encourages students from other countries to enroll and is authorized by the United States Department of Justice to issue necessary Certificate of Eligibility for F-1 Student Status (Form 1-20). For admissions information, these students should contact the Admissions Office at Broome Community College, P.O. Box 1017, Binghamton, New York 13902, USA.

The commitment of the College to the promotion of international understanding and cooperation is reflected in the educational programs and services B.C.C. has increasingly been providing to foreign governments and foreign affairs agencies of the U.S. government. The purpose of such activities is to provide participants with the education needed for admittance to four-year institutions, and to strengthen understanding between participant nations. Through these programs, Broome Community College is able to serve the ideals of mutual international cooperation in college education.

Although most programs at the College have different admission standards, as a minimum, international students are admitted to the College under the following conditions:

-Demonstrate proficiency of the English language by (1) submitting official TOEFL scores of 400 or better or a Michigan Test score of 65 or better or (2) submitting official English language translation of transcripts from all secondary schools and colleges attended requiring at least 4 full years of English language. A TOEFL score of 525 will qualify a student for admission into any degree program, but a writing sample is administered prior to registration to determine the appropriate English course.

-Submit TOEFL or Michigan Test scores if either of these tests of English language proficiency have been taken. Students whose native language is not English must also take a special language proficiency examination at the College before they are allowed to register for classes.

-Provide an affidavit of financial support and a transcript in English (certified translation) of all secondary school or college work.

-Show evidence of health coverage. Information on a state health plan will be sent to students upon acceptance to the College.

-The College requires all new students to take an English and math examination to help identify the most appropriate course of study to meet their educational needs. These test must be taken before you can register for classes.

-You cannot be considered for admission until all required items have been received.

No housing is provided for students at BCC. Some local residents list available housing with the College and students are responsible for making their own housing arrangements, although the International Student Advisor does assist in the process. It is estimated that College costs and living expenses approximate \$9,765 per year.

The College provides an advisor to assist students from other countries in all areas of student life while at Broome Community College. Both academic and non-academic problems may be discussed with the advisor whose office is in the Wales Building, Room 210.



# PLACEMENT

## 91% OF 1986 GRADUATES FOUND JOBS OR TRANSFERRED

- 91% of the 1986 Graduates either found employment or transferred to 4-year colleges, thus enabling BCC to fulfill its two major missions of preparing graduates for immediate employment or transfer to 4-year colleges.

- 48% of the graduates went to work.
- 43% transferred to 2 and 4 year colleges or other technical programs.
- 6% were unemployed at the time of the survey.
- 3% unavailable for work.

- **Starting Salaries** of those who went to work averaged \$14,378 a year and ranged from \$7,000 up to \$26,000. About 40% reported salary information.

- **1071 Graduates in Class of 1986** at Broome Community College, and 88% of them responded to survey. All statistics here are based on that 88% response.

### • Where They Went To Work:

77% of those who went to work found jobs in Broome County, with an additional 10% working elsewhere in the Southern Tier. In addition 4% got jobs elsewhere in New York State, and another 9% went outside of the state.

### • Where They Transferred To:

- 67% of those who are continuing their higher education transferred to colleges in the State University of New York (SUNY) system.
- 19% to private colleges in New York State.
- 14% to out-of-state colleges and universities.

### • Leading Employers, in order:

Large industries in NY State, such as IBM, Singer-Link, Corning Glass  
Hospitals and Nursing Homes in Broome County  
Retail Stores in Broome County  
Small to Medium industries in Broome County, such as Atlantic Design, Chenango Industries, Buckingham Mfg., Ramp Industries  
Day Care, Educational, and Non-Profit Organizations in Broome County  
Banks, Accounting, Investments and Insurance Agencies in Broome County  
Hospitals and Nursing Homes Out of State  
Physicians in Broome County  
Temporary Services Agencies and Job Shops  
Small Businesses in Broome County  
Restaurants and Fast Food Franchises in Broome County  
Hospitals and Nursing Homes in the Southern Tier.

### • Colleges to which BCC Graduates Transferred in 1986, in order:

SUNY Binghamton  
Rochester Institute of Technology  
SUNY College at Oswego  
SUNY College at Cortland  
SUNY Buffalo  
Clarkson University  
SUNY Albany  
SUNY College at Brockport  
SUNY College of Technology at Utica/Rome  
Virginia Polytechnic Institute

Most students who attend Broome Community College will eventually enter the labor market. Getting a job, particularly that first entry level position, requires an understanding of how to contact employers and what job hunting techniques provide the best employment success. The Placement Office not only helps students locate positions but offers assistance in resume writing and interviewing techniques.

The Placement Office lists full-time,

part-time and seasonal jobs from employers who want to hire Broome Community College students and alumni. Most of these positions are related to academic programs at the College, and they are of particular value to students wishing to gain experience in their chosen field. The New York state Employment Service "Job Bank" and employment counselor are also available on a daily basis in the Placement Office (Wales Building, Room 201).

The quality of the College's academic programs is well known by many companies both locally and nationally. During the spring semester of every year, representatives of business and industry visit the campus to interview potential graduates for employment purposes. Students wishing information regarding this recruitment program should contact the Placement Office by November 1.

Individual appointments can be made to discuss job market predictions, salary expectations, and other questions related to employment.



**Placement Office**  
**Wales Bldg., Room 201**  
**Phone: 771-5205**



# PLACEMENT FOR CLASS OF 1986

## THE ACADEMIC AREAS

**BUSINESS**—334 graduates, 54% employed, 7% unemployed, 36% transferred, 3% unavailable for work. Salary information - \$11,223 average, \$7,000 to \$16,000 range.

**COMPUTER STUDIES**—96 graduates, 38% employed, 7% unemployed, 52% transferred, 3% unavailable for work. Salary information - \$14,775 average, \$14,600 to \$18,100 range.

**HEALTH SCIENCES**—149 graduates, 78% employed, 3% unemployed, 12% transferred, 7% unavailable for work. Salary information - \$16,104 average, \$8,320 to \$26,000 range.

**LIBERAL ARTS**—177 graduates, 22% employed, 3% unemployed, 73% transferred, 2% unavailable for work. Salary information - \$10,700 average, \$9,000 to \$12,000 range.

**TECHNOLOGY AND ENGINEERING**—242 graduates, 42% employed, 8% unemployed, 50% transferred, 0% unavailable for work. Salary information - \$17,136 average, \$9,360 to \$22,000 range.

**SPECIAL CAREER PROGRAMS**—83 graduates, 58% employed, 1% unemployed, 39% transferred, 1% unavailable for work. Salary information - \$12,643 average, \$10,000 to \$15,500 range.

## CURRICULUM

Following is a summary of each curriculum of BCC's six academic areas in which there were graduates last year. Percentages are based on number of graduates responding, not total number.

## BUSINESS

**ACCOUNTING**—62 graduates, 60% employed, 6% unemployed, 29% transferred, 6% unavailable for work. Salary information - \$10,211 average, \$7,000 to \$14,000 range.

**BUSINESS ADMINISTRATION**—100 graduates, 24% employed, 6% unemployed, 70% transferred, 0% unavailable for work. Salary information - \$11,240 average, \$8,320 to \$15,000 range.

**MARKETING MANAGEMENT**—75 graduates, 64% employed, 8% unemployed, 25% transferred, 2% unavailable for work. Salary information - \$12,308 average, \$10,500 to \$16,000 range.

**MARKETING SALES**—34 graduates, 59% employed, 7% unemployed, 33% transferred, 0% unavailable for work. Salary information - \$11,040 average, \$8,320 to \$15,000 range.

**OFFICE TECHNOLOGIES (ENGINEERING SECRETARY)**—1 graduates, 100% employed. Salary information not available.

**OFFICE TECHNOLOGIES (EXECUTIVE SECRETARY)**—38 graduates, 83% employed, 6% unemployed, 6% transferred, 6% unavailable for work. Salary information - \$11,469 average, \$7,280 to \$14,700 range.

**OFFICE TECHNOLOGIES (OFFICE SERVICES ASSISTANT)**—18 graduates, 75% employed, 13% unemployed, 6% transferred, 6% unavailable for work. Salary information - \$10,386 average, \$8,463 to \$12,480 range.

**OFFICE TECHNOLOGIES (WORD PROCESSING)**—6 graduates, 67% employed, 17% unemployed, 0% transferred, 17% unavailable for work. Salary information not available.

## COMPUTER STUDIES

**COMPUTER SCIENCE**—54 graduates, 23% employed, 8% unemployed, 64% transferred, 6% unavailable for work. Salary information not available.

**COMPUTER TECHNOLOGY**—15 graduates, 64% employed, 7% unemployed, 29% transferred, 0% unavailable for work. Salary information - \$14,600 average, \$10,400 to \$18,100 range.

**DATA PROCESSING**—27 graduates, 59% employed, 5% unemployed, 36% transferred, 0% unavailable for work. Salary information - \$15,067 average, \$11,000 to \$18,000 range.

## HEALTH SCIENCES

**DENTAL HYGIENE**—20 graduates, 85% employed, 0% unemployed, 15% transferred, 0% unavailable for work. Salary information - \$17,551 average, \$15,300 to \$20,800 range.

**MEDICAL ASSISTING**—12 graduates, 90% employed, 0% unemployed, 0% transferred, 10% unavailable for work. Salary information - \$9,817 average, \$8,320 to \$10,566 range.

**MEDICAL LABORATORY TECHNOLOGY**—13 graduates, 31% employed, 0% unemployed, 46% transferred, 23% unavailable for work. Salary information not available.

**MEDICAL RECORDS TECHNOLOGY**—11 graduates, 64% employed, 0% unemployed, 27% transferred, 9% unavailable for work. Salary information - \$14,161 average, \$12,376 to \$18,000 range.

**NURSING**—74 graduates, 85% employed, 5% unemployed, 5% transferred, 6% unavailable for work. Salary information - \$17,413 average, \$12,000 to \$26,000 range.

**RADIOLOGIC TECHNOLOGY**—19 graduates, 89% employed, 6% unemployed, 6% transferred, 0% unavailable for work. Salary information - \$16,322 average, \$14,144 to \$18,304 range.

## LIBERAL AND GENERAL STUDIES

**ASSOCIATE IN ARTS DEGREE**—151 graduates, 21% employed, 3% unemployed, 74% transferred, 2% unavailable for work. Salary information - \$10,500 average, \$9,000 to \$12,000 range.

**ASSOCIATE IN SCIENCE DEGREE**—7 graduates, 0% employed, 0% unemployed, 100% transferred, 0% unavailable for work. Salary information not available.

**MENTAL HEALTH EMPHASIS**—19 graduates, 31% employed, 6% unemployed, 56% transferred, 6% unavailable for work. Salary information not available.

## TECHNOLOGY AND ENGINEERING

**CHEMICAL ENGINEERING TECHNOLOGY**—19 graduates, 63% employed, 11% unemployed, 26% transferred, 0% unavailable for work. Salary information - \$17,676 average, \$9,360 to \$20,852 range.

**CIVIL ENGINEERING TECHNOLOGY**—12 graduates, 58% employed, 0% unemployed, 33% transferred, 8% unavailable for work. Salary information - \$13,993 average, \$13,000 to \$15,000 range.

**ELECTRICAL ENGINEERING TECHNOLOGY**—70 graduates, 59% employed, 15% unemployed, 26% transferred, 0% unavailable for work. Salary information - \$18,556 average, \$9,880 to \$22,000.

**ENGINEERING SCIENCE**—73 graduates, 3% employed, 0% unemployed, 97% transferred, 0% unavailable for work. Salary information not available.

**INDUSTRIAL TECHNOLOGY**—30 graduates, 80% employed, 16% unemployed, 4% transferred, 0% unavailable for work. Salary information not available.

**MECHANICAL ENGINEERING TECHNOLOGY**—34 graduates, 44% employed, 3% unemployed, 53% transferred, 0% unavailable for work. Salary information - \$17,440 average, \$15,000 to \$20,400 range.

**TOOL AND DIE MAKING**—4 graduates, 75% employed, 25% unemployed, 0% transferred, 0% unavailable for work. Salary information not available.

## SPECIAL CAREER PROGRAMS

**EARLY CHILDHOOD EDUCATION**—19 graduates, 76% employed, 0% unemployed, 24% transferred, 0% unavailable for work. Salary information - \$10,750 average, \$10,000 to \$11,000 range.

**CRIMINAL JUSTICE**—21 graduates, 56% employed, 6% unemployed, 38% transferred, 0% unavailable for work. Salary information not available.

**FIRE PROTECTION TECHNOLOGY**—1 graduate, 100% employed. Salary information not available.

**INDIVIDUAL STUDIES (AAS)**—8 graduates, 50% employed, 0% unemployed, 50% transferred, 0% unavailable for work. Salary information not available.

**INDIVIDUAL STUDIES (AS)**—18 graduates, 23% employed, 0% unemployed, 69% transferred, 8% unavailable for work. Salary information - \$13,750 average, \$12,000 to \$15,500 range.

**INDUSTRIAL SAFETY AND OCCUPATIONAL HYGIENE**—4 graduates, 75% employed, 0% unemployed, 25% transferred, 0% unavailable for work. Salary information not available.

**PARALEGAL ASSISTANT**—12 graduates, 67% employed, 0% unemployed, 33% transferred, 0% unavailable for work. Salary information not available.



# STUDENT AFFAIRS

Student affairs at Broome Community College fall within three primary areas of responsibility - student development, student services, and student management.

**Student Development** responsibilities include counseling, international student affairs, academic advisement, testing, freshman orientation, student activities, intercollegiate athletics, drug abuse education, leadership training, career development, veterans advisement, personal development courses, and transfer advisement.

**Student Services** cover admissions, financial aids, placement and health services.

**Student Management** concerns itself with student discipline, rights, responsibilities, judicial system and grievance procedures.

A comprehensive statement outlining the College's code of student conduct and student rights and responsibilities is available in the office of the Vice President for Student Affairs in Room 202 of the Wales Building. Students are welcome to examine it.

## EDUCATIONAL OPPORTUNITY PROGRAM (EOP)

The Educational Opportunity Program is designed for students who are economically disadvantaged. It provides economic aid and remedial and developmental assistance, with the amount of financial aid based on need. Students who do not require financial assistance under this program may benefit from the educational services offered by EOP. To be funded by EOP, students must provide appropriate income information, and all students must be New York State residents as this is a state program. The EOP Office at the College is located in Room 111 in the Wales Building.

## PACE

The BCC PACE (Public Assistance Comprehensive Employment) Program is a cooperative effort between The Department of Social Services and Broome Community College. It is geared specifically to help men and women with dependent children who are receiving public assistance and wish to return to school for vocational education.

We help students cope with the responsibilities of being both parent and student, plus help coordinate child care and transportation needs. Those interested in this program may contact The BCC PACE Program, Room 208 in the Student Affairs Building or call 771-5350.

## LIVING ACCOMMODATIONS

The college has no dormitory facility and assumes no responsibility for student housing. As a service to students the Student Activities Office maintains an up-to-date record of housing accommodations which landlords submit as being available. Copies of the housing list may be obtained by contacting the secretary in the Student Activities office located in the Student Union. The listing is neither an approval nor rating by the college, nor will the college become a third party in any arbitration between students and landlords. Housing arrangements must be made directly by students and parents with local landlords.

## HEALTH SERVICE

The college provides a Health Service which is available to all students at no additional charge for services rendered on campus.

Professional staff includes a full time nurse practitioner, a physician available two mornings a week for three hours, and one registered nurse on duty during regularly scheduled class periods.

The Health Service is located in the Wales Administration Building, Room 104, and is available 8:30 a.m. to 4:30 p.m., Monday through Friday. All records are confidential, and information will be released only with the written authorization of the student.

### SERVICES:

- Treatment of illnesses and injuries.
- Medical emergency care
- Athletic physicals for varsity sports.
- Blood pressure and vision checks.
- Pap tests by appointment.
- Pregnancy Testing.
- Referrals to local physicians, specialists, dentists, clinics, hospitals.
- Allergy injections - medication to be supplied by student.
- Tetanus and PPD-Mantoux injections.
- Birth control information and counseling.
- Diet and weight control.
- Free pamphlets pertaining to various health matters.
- Tests for strep throat, mononucleosis, diabetes, anemia and urinary problems.
- STD detection.
- Health education programs on campus.
- Insurance - Processing of accident insurance claims, as well as information regarding insurance claims, as well as information regarding international student health insurance and optional sickness plan.
- Counseling and assistance with personal academic and health problems with appointment referrals within the college community.
- Monthly Newsletter with timely hints to assist students to assume responsibility for their own health care.

## STUDENT ACTIVITIES

The Student Activities Program at Broome has grown out of a conviction that education is not restricted to scheduled classes, that the hours outside of the classroom are of major importance, and that the Student Activities Program can give a new dimension to education. This program offers a variety of social and cultural experiences and opportunities for the development of social growth, moral values, appreciation and insights.

In recognizing the existence of the other half of college life, the college actively supports a co-curricular activities program that is funded by the student activity fee paid each semester. The Student Activities area represents one phase of campus life in which the students can and do have a voice in management and programming. The diversity of students interests is reflected in the many active clubs and organizations on campus. Involvement in the Student Activities Program provides students with the opportunity to develop leadership abilities.

Credit can be earned for participating in some of these co-curricular activities. Students should check with their advisors for further information concerning these credits.

## STUDENT GOVERNMENT ASSOCIATION

The official organization of student representation on the Broome Community College campus is the Student Government Association. Student membership consists of five officers and thirteen senators who are elected yearly. The remainder of the senate is comprised of one representative from each of these support areas: Program board, Clubs Council, and Intercollegiate Athletic Advisory Council. All BCC students are welcome to attend meetings and become involved with SGA committees and activities. The SGA holds regularly scheduled meetings to discuss all issues concerning students. These issues are then presented to the appropriate faculty, staff or administrative area. A Student Trustee sits on the College Board of Trustees as a voting member and presents information of student interest to this body.

Student Government Association fulfills many student responsibilities on campus. It regularly reviews college policy and makes recommendations to the College Administration. Representatives of the SGA serve on the Faculty-Student Association. The operation of the student government is important to students and puts students ideas and viewpoints into action.



## PROGRAM BOARD

One of the most active organizations on campus is the Program Board. Dances, Broadway, road shows, Spring Picnic, noon-hour programs, featuring famous artists and speakers, convocations and cultural events both on and off campus are the products of the programmer's efforts. This board is a voice of the campus in selecting the kinds of entertainment performed. The board is composed of student, faculty, and administrative representatives.

## CLUB COUNCIL

The body that represents most of the 32 clubs on campus is Club Council. This council meets twice monthly with one representative from each club forming the Senate body. If a club or organization is not represented on campus, students can visit Club Council for information on starting one.

## STUDENT CENTER

One of the busiest buildings on the Broome Community College campus is the Student Center. It houses the gymnasium, the College Cafeteria, Book Store, the Little Theater, Physical Education and Athletic Director's offices, and many of the social events are held here. This building is used by day and evening students of all curriculums.

## MEDIA BOARD

**Fulcrum** (campus newspaper) offers a variety of information for the students. It speaks out on important issues, offers the humorous side of student life, and gives the students a chance to voice their opinions through editorials and human interest stories.

**Citadel** (the yearbook) provides an opportunity for students to work on a more lasting project and to cover the entire college year in words and pictures.

**Audio-Media Organization** is for students who want to be involved in live broadcasting. WBCR Campus Radio provides an opportunity to learn about the different jobs in radio while working for an actual closed circuit radio station. WBCR provides the college community with music, information and special station-sponsored events. Members learn to be DJ's, to program music, to coordinate a show and to market "airtime."

## THE STUDENT UNION

The Student Union is for students to enjoy during their leisure hours on campus away from the books. From eight in the morning until five in the evening, the Union provides diverse recreational activities. Electronic games, ping pong, pool foosball, and pinball are available for play and relaxation. The Union provides a lounge for playing chess or cards, a video projector for viewing TV and feature films daily and, of course, vending machines.

The Union houses many organizations on campus including the newspaper, yearbook. Programming office, Student Government and also the Student Activities Office. The door to this last office always remains open for the student's personal joint input about the activities held on campus.

## CURRICULUM AFFILIATED ORGANIZATIONS

In addition to the student organizations listed above that are affiliated with professional societies, the College has a number of associations that are identified with specific curriculums. Among these are Accounting Club, Business Club, Chemistry Club, Civil Technology Association, Computer Club, Dental Hygiene Assoc., Future Secretaries Assoc., Medical Assistant Club, Medical Records Club, Citadel (yearbook), Fulcrum (newspaper), Institute of Electrical & Electronics Engineers, Society of Manufacturing Engineers, Student Nurses Assoc., Lively Arts from the Liberal Arts curriculum, and the Student Organization of Radiologic Technologies.



## OTHER CLUBS

In addition to the co-curricular activities listed on this page and the next one, other organizations are active on campus. These include:

Adult Club	Outing Club
Aviation Club	Lambda Society -
Camera Club	Gay Students
Campus Bible	Organization
Fellowship	Ski Club
Campus Ministry	Students With
Cheerleaders	Different Abilities
Circle K	Third World
Phi Theta Kappa	Organization
International	
Student	
Organization	

These are open to all full-time and part-time students. Details are available in the Student Handbook and from the Director of Student Activities.

## PERFORMING ARTS

### THEATRE/BCC

Complementing the studio and academic course work in theater is the group known as Theatre/BCC. All students are invited to participate, whether or not enrolled in formal course work.

Theatre/BCC enjoys a fine artistic reputation, presenting a broad range of theatrical styles, and provides its actors/technicians with varied opportunities for ensemble as well as individual training. Theatre/BCC provides a challenging and exciting experience for students with an interest in the theater, and most of its productions are performed in the intimate setting of the College's Little Theater.

### MUSIC

**College Choir** is sponsored jointly by the Liberal Arts Division and Student Government Association. Choristers have gained an excellent reputation and are exposed to a broad range of choral literature reflecting the varied demands for community concerts. The chorus traditionally produces an annual performance on Handel's Messiah and an annual Spring Concert, as well as performing for local church and civic organizations. The College Choir makes an annual concert tour to such places as Washington, D.C. or Williamsburg, VA. Rehearsals are held weekly and all students and staff as well as community signers are welcome to join this very active group.

The **Music Association** offers students who have previously played instruments the chance to continue their involvement in small ensembles (brass, woodwind and string) and the College Stage Band. A limited program of private coaching is also available.



**BCC Jazz Ensemble** offers instrumentalists a chance to perform jazz and jazz-rock on campus, and on tour. Its members strive for high quality performing and the enjoyment of working together toward this goal. A group of eight singers is used for popular arrangements with the band.

Improvisation, beginning and intermediate piano, beginning guitar reading classes are available to BCC students.

The Theater and Music Programs have joined in musical theater productions. Any BCC students who are interested may audition for performance on stage or in the orchestra.

**NOTE:** Students may receive transferable credit for active participation in College Choir, the Instrumental Music Association and Theatre/BCC. The conditions for this credit are available from one's advisor.



## PROFESSIONAL SOCIETY AFFILIATES

Since exposure to organizations in their fields of study is considered of benefit to students, many curriculums have their own affiliates of national professional societies. Among these are:

**Society of Manufacturing Engineerings (SME)** for Mechanical Engineering Technology and for Tool and Die Making students.

**Dental Hygiene Association**, an affiliate of the American Dental Hygiene Association.

**Institute of Electrical and Electronics Engineers (IEEE)** for Electrical Engineering Technology students.

In addition, some meetings of local professional societies are attended by students, such as the **American Chemical Society**, which invites Chemical Engineering Technology students to its meetings. Some professional societies hold meetings on campus, too, and students are always welcome to attend. Thus students have the opportunity to become acquainted with professional people in their fields of study and to attend lectures and see films and demonstrations of new developments.

## HONOR SOCIETIES

### Phi Theta Kappa

In 1962, the Mu Eta Chapter of the Phi Theta Kappa was established at the College. Phi Theta Kappa is a national honor society at two-year colleges, similar in purpose to Phi Beta Kappa at the four-year colleges and universities. Mu Eta Chapter is open to freshman and seniors at Broome CC who have achieved outstanding academic grades.

### Sigma Phi Alpha

The national dental hygiene honor society, Sigma Phi Alpha, has a chapter at Broome CC, The Upsilon Chapter. Senior Dental Hygiene students who rank highest in scholarship and who exhibit potential qualities for future growth and attainment are selected for membership.

### Tau Alpha Pi

The national honor society for students in engineering technology programs, Tau Alpha Pi has established a chapter on the Broome Community College campus. It is the Beta Theta Chapter. This society recognizes academic achievement in BCC engineering technology curriculums in Electrical, Civil, Chemical and Mechanical Technology.

## ATHLETICS INTRAMURALS

Physical activity is a vital part of an individual's life, regarding less of physical capability. With this in mind, the Student Affairs Division and the Physical Education Department coordinate an intramural program for all students enrolled at the College. Students are invited to participate in team sports such as Touch football, Soccer, Gym hockey, basketball, Volleyball and Softball. For those interested in individual competition or "Play for fun," sports such as tennis, golf, badminton, horseshoes and bowling are also offered. Students participating in intramurals should have a health questionnaire on file with the college Health Service. Forms are available in the Health Service (Wales Building, Room 104).

### WOMEN'S SPORTS (Intercollegiate)

Broome Community College fields women's teams in five varsity sports - tennis, cross country, volleyball, basketball and softball - and they have achieved some fine success in recent years.

One of the cross country runners participated in the National Tournament in Hutchinson, Kansas in 1983; the tennis team has captured several individual and team regional titles in recent years and participated in the Nationals in 1983 and 1984 in Ocala, FL; after being the runner-up in the Region III Tournament in 1982, the volleyball team captured first place in 1983 and 1984 and played in the Nationals. Furthermore, both the basketball and softball teams have had excellent records in recent years. Cheerleading is also available for women.

### MEN'S SPORTS (Intercollegiate)

Broome Community College fields men's teams in eight varsity sports - cross country, soccer, wrestling, basketball, ice hockey, tennis, golf, baseball.

BCC athletic teams have an excellent reputation in two-year college competition. Included in the basketball team's more than 876 victories are 10 regional titles. Coach Dick Baldwin became one of the first inductees into the National Junior College Basketball Hall of Fame, and he is the winningest college basketball coach in the country. The tennis and baseball teams have also been successful in regional competition, and in 1983 the baseball team was the regional champion.

The golf team has also been a recent Region III winner, capturing the team championship in 1981, 1984 and 1985.

The soccer team too has been good enough in recent years to be invited to post-season competition and the ice hockey team has been ranked in the top five nationally in recent years and has had two junior college all-Americans. Broome's wrestling team produced an "all-American" in the 1987 season.



## BOOK STORE

The College Book Store, or Campus Store as it is sometimes referred to, it located in the Student Center and actually has two areas of operation - The Textbook Store and the Campus Shop.

In the Textbook Store students may purchase their required books. To avoid standing in long lines the first week of classes, students are urged to purchase their books during the advance sale period, which is the week preceding the start of classes in both the fall and spring semester. Books are not available prior to this advance sale period. It is advisable to purchase all required textbooks early in the semester. In addition to the obvious reason of using them for studying, all unsold books must be returned to the publisher shortly after the semester begins.

The Campus Store offers variety of items, in addition to such classroom supplies as notebooks, paper, pens and binder, there are art and drafting materials, imprinted gift items and sportswear.

Students who have any special problems, suggestions or requests should feel free to contact store management.

## FACULTY-STUDENT ASSOCIATION

The Faculty-Student Association of Broome Community College, Inc., is an educational corporation designed to provide to the College, and particularly to the students and faculty, services that are not included in the regular College budget.

It provides the corporate organization through which the student fees are expended under a budget prepared by the Student Government Association. It also operates a variety of auxiliary services including the College Book Store and food vending and child care.

The FSA earnings augment student fees to support new or special activities. The association is governed by a board of directors elected by members who hold certain offices on campus. The operating philosophy is to make the educational program outside the classroom a well-rounded supplement to the students' academic experiences.





# PART 2



# PROGRAMS OF STUDY BY CURRICULUM

The academic programs, whose display of courses appears on pages 34 to 66, are designed primarily for full-time students of the College. It is possible, however, for one to study for an associate degree in any of these curriculums on a part-time basis. To do this, one should contact the appropriate department chairperson. The College's programs that are intended mainly for part-time appear on pages 70 to 78.

## BUSINESS

DEPARTMENT CHAIRPERSON, Richard P. Behr  
Business Building, Room 107  
Telephone 771-5008

ACADEMIC ADVISOR, Robert Newcomb  
Business Building, Room 103  
Telephone 771-5008

CURRICULUM COORDINATOR, John Bunnell  
Business Building, Room 103  
Telephone 771-5008

CURRICULUM COORDINATOR, Stanley Lee  
Business Building, Room 218  
Telephone 771-5008

The Department of Business offers programs in four areas of study -Accounting, Business Administration, Marketing/Management and Real Estate. In addition, the accounting curriculum offers an emphasis in banking, and the marketing/management curriculum offers emphases in marketing, management, retail management, and entrepreneurship. These programs were planned with the assistance of advisory committees made up of individuals currently working in the various areas of business involved. To assist the incoming student in selecting the proper option, all have a common first semester. Thus, the student can delay selection of a program until registration for the second semester. During the first semester of study, all full-time students will be assigned an advisor to assist them in selecting a program and appropriate courses.

Cooperative work experience is available to many business students. This offers the student first hand practical experience and college credit.

Programs in Accounting, Marketing, Management, Entrepreneurship, Banking and Retail Management are career oriented and designed to prepare the graduate for immediate employment. Opportunities exist locally for careers in these fields. The student should note that, although these programs are not designed specifically for transfer, they do provide good transfer opportunities to many four-year colleges and universities. Many four-year schools will accept graduates of these programs at full junior status.

The Business Administration program is designed to facilitate transfer to four-year colleges and universities. If the proper elective sequences are followed, this option will allow the student junior status at almost all four-year schools. *It is of the utmost importance that students confer with their advisor before choosing electives.* The department of Business also offers certificates of competency in Marketing, Management, Accounting, and other areas. See the Academic Advisor for information regarding these.

## ACCOUNTING

### FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
BUS 100 Accounting I .....	4	0	4
BUS 118 Business Law I .....	3	0	3
BUS 141 Marketing .....	3	0	3
ENG 110 Written Expression I .....	3	0	3
*BUS 112 Quantitative Business Methods .....	2-3	0	2-3
	15-16	0	15-16

\*Depending on Mathematics entrance testing scores and Math background, the student will take: MAT 090A and QBM or QBM or Introduction to Business.

### Spring Semester

BUS 101 Accounting II .....	4	0	4
BUS 120 Business Law II .....	3	0	3
CST 107 Business Appl. Micro Computer .....	3	0	3
BUS 000 Elective (Pick one elective from group A below) .....	2-4	0-2	3-4
\$MAT 145 Finite Mathematics or MAT 117 Elementary Finite Mathematics .....	3-4	0	3-4
	15-18	0-2	16-18

\$Students who have passed Sequential Math III or Intermediate Algebra in high school will take MAT 145 Finite Mathematics.

### SECOND YEAR

#### Fall Semester

#BUS 200 Intermediate Accounting I .....	4	0	4
#BUS 205 Cost Accounting I .....	4	0	4
PHS Physical Science .....	3	2-3	4
Student may choose PHS 113, 114, 115 or 116			
ENG 220 Communicating About Values .....	3	0	3
ECO 110 Micro Economics or ECO 111 Macro Economics ...	3	0	3
	17	2-3	18

#### Spring Semester

#BUS 201 Intermediate Accounting II .....	4	0	4
#BUS 206 Cost Accounting II or			
#BUS 210 Managerial Accounting .....	4	0	4
SPK 102 Effective Speaking .....	3	0	3
Social Science Elective .....	3	0	3
Elective (pick one elective from group B below) .....	2-4	0-2	3-4
	16-18	0-2	17-18

Total Credits: 67-70

Group A Electives: BUS 115★, BUS 224, BUS 245, BUS 249, BUS 262, or a programming language (CST)

Group B Electives: BUS 206, BUS 210, BUS 224, BUS 245, BUS 249, BUS 262, BUS 270★, BUS 295 or a programming language (CST).

★BUS 115 is a prerequisite for BUS 270.

#Take these courses in sequence. They are not offered in all semesters.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.



# BANKING/FINANCE

## EMPHASIS OF ACCOUNTING

### FIRST YEAR

#### Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
BUS 100 Accounting I .....	4	0	4
BUS 118 Business Law I .....	3	0	3
BUS 141 Marketing .....	3	0	3
ENG 110 Written Expression .....	3	0	3
*BUS 112 Quantitative Business Methods .....	2-3	0	2-3
<b>Total</b>	<b>15-16</b>	<b>0</b>	<b>15-16</b>

\*Depending on Mathematics entrance testing scores and math background, student will take: MAT 090A and QBM or QBM or Introduction to Business

#### Spring Semester

Math or Science Elective .....	3-4	0-3	3-4
BUS 101 Accounting II .....	4	0	4
BUS 120 Business Law II .....	3	0	3
#BNK 168 Principles of Banking .....	3	0	3
ECO 111 Macro Economics .....	3	0	3
<b>Total</b>	<b>16-17</b>	<b>0-3</b>	<b>16-17</b>

### SECOND YEAR

#### Fall Semester

BNK Banking Elective .....	3	0	3
BUS 131 Personal Finance .....	3	0	3
BUS 152 Selling Fundamentals .....	3	0	3
ECO 110 Micro Economics .....	3	0	3
PHS Physical Science .....	3	3	4
Students may choose PHS 113, 114, 115 or 116			
SPK 102 Effective Speaking .....	3	0	3
<b>Total</b>	<b>18</b>	<b>3</b>	<b>19</b>

#### Spring Semester

ENG 220 Communicating About Values .....	3	0	3
#BUS 135 Investments .....	3	0	3
BNK Banking Elective .....	3	0	3
CST 107 Bus. Appl. on Microcp .....	3	0	3
BUS 224 Bus. Finance .....	3	0	3
<b>Total</b>	<b>15</b>	<b>0</b>	<b>15</b>

Total Credits: 65-67

#Take these courses in sequence. They are not offered in all semesters.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

# BUSINESS ADMINISTRATION

### FIRST YEAR

#### Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
BUS 100 Accounting I .....	4	0	4
BUS 118 Business Law I .....	3	0	3
BUS 141 Marketing .....	3	0	3
ENG 110 Written Expression I .....	3	0	3
*BUS 112 Quantitative Business Methods .....	2-3	0	2-3
<b>Total</b>	<b>15-16</b>	<b>0</b>	<b>15-16</b>

\*Depending on Mathematics entrance testing scores and Math background, the student will take: MAT 090A and QBM or QBM or Introduction to Business

#### Spring Semester

BUS 101 Accounting II .....	4	0	4
BUS 120 Business Law II .....	3	0	3
BUS 115 Business Statistics .....	3	0	3
\$Business, Computer Studies or Liberal and General Studies Elective .....	3	0-2	3
SPK 102 Effective Speaking .....	3	0	3
\$Select one of the following			
CST 115 Introduction to PASCAL .....	2	2	3
CST 118 Introduction to COBOL .....	2	2	3
CST 107 Bus Aplctn. MICRO. Comp .....	3	0	3
<b>Total</b>	<b>18-19</b>	<b>0-4</b>	<b>19</b>

### SECOND YEAR

#### Fall Semester

ECO 110 Micro Economics .....	3	0	3
MAT 145 Finite Math .....	3	0	3
PHS 113-116 Lab Science Elective .....	3	3	4
\$Liberal and General Studies Elective .....	3	0	3
PED Physical Education .....	2	0	1
\$Liberal and General Studies or Business or			
CST elective .....	3-4	0-3	3-4
<b>Total</b>	<b>17-18</b>	<b>0-5</b>	<b>17-18</b>

#### Spring Semester

ECO 111 Macro Economics .....	3	0	3
MAT 146 Introduction to Calculus .....	3	0	3
PHS 113-116 Lab Science Elective .....	3	3	4
\$Liberal and General Studies Elective .....	3	0	3
ENG 220 Communicating About Values .....	3	0	3
<b>Total</b>	<b>15-16</b>	<b>0-5</b>	<b>16-17</b>

Total Credits: 67-70

\$To maximize transfer credit, students *must* see their academic advisor for counseling concerning the proper selection of business, liberal and general studies, and computer science electives.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.



# ENTREPRENEURSHIP

## EMPHASIS OF MARKETING/MANAGEMENT

### FIRST YEAR

#### Fall Semester

			Hours per Week		Credits per
			Class	Lab	Semester
BUS	110	Accounting I .....	4	0	4
BUS	118	Business Law I .....	3	0	3
BUS	141	Marketing .....	3	0	3
ENG	110	Written Expression I .....	3	0	3
*BUS	112	Quantitative Business Methods .....	2-3	0	2-3
			15-16	0	15-16

\*Depending on Mathematics entrance testing scores and Math background, the student will take: MAT 090A and QBM or QBM or Introduction to Business

#### Spring Semester

CST	107	Bus. Appl. Micro Computer ...	3	0	3
BUS	101	Accounting II .....	4	0	4
BUS	120	Business Law II .....	3	0	3
		Social Science Elective .....	3	0	3
\$MAT	117	Elem. Finite or			
MAT	139	Algebra .....	4	0	4
			17	0	17

### SECOND YEAR

#### Fall Semester

\$BUS	131	Personal Finance .....	3	0	3
BUS	224	Business Finance .....	3	0	3
SPK	102	Effective Speaking .....	3	0	3
†PHS	111	Physical Science Today .....	3-4	0-3	4
ECO	110	Micro Economics .....	3	0	3
			15-16	0-3	15-16

#### Spring Semester

#BUS	266	Adv. + Pro. for SB .....	4	0	4
#BUS	263	Small Business Seminar .....	3	0	3
BUS	245	Management Behavior .....	3	0	3
ENG	220	Communicating About Values .....	3	0	3
Select one of the following					
###BUS	297	Internship .....	3	0	3
or					
BUS		Business Elective .....	3	0	3
			16	0	16

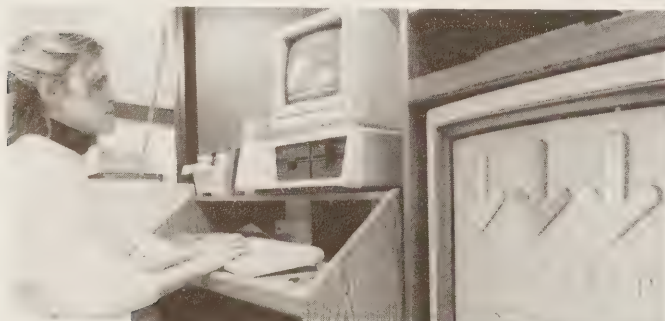
Total Credits: 63-65

\$ Students will be advised which course to take based on their previous math background.

† Students who are planning to transfer are advised to take PHS 113, 114, 115, or 116.

### Strongly recommended.

# Take these courses in sequence. They are not offered in all semesters.



# MANAGEMENT

## EMPHASIS OF MARKETING/MANAGEMENT

### FIRST YEAR

#### Fall Semester

			Hours per Week		Credits per
			Class	Lab	Semester
BUS	100	Accounting I .....	4	0	4
BUS	118	Business Law I .....	3	0	3
BUS	141	Marketing .....	3	0	3
ENG	110	Written Expression I .....	3	0	3
*BUS	112	Quantitative Business Methods .....	2-3	0	2-3
			15-16	0	15-16

\*Depending on Mathematics entrance testing scores and Math background, the student will take: MAT 090A and QBM or QBM or Introduction to Business

#### Spring Semester

BUS	101	Accounting II .....	4	0	4
BUS	120	Business Law II .....	3	0	3
BUS	152	Selling Fundamentals .....	3	0	3
PHS		Physical Science .....	3	3	4
Student may choose PHS 113, 114, 115 or 116					
MAT	139	Algebra .....	4	0	4
			17	3	18

### SECOND YEAR

#### Fall Semester

BUS	115	Business Statistics .....	3	0	3
#BUS	224	Business Finance .....	3	0	3
BUS	245	Management: A Behavioral Approach .....	3	0	3
CST	107	Business Appl. Micro Computer .....	3	0	3
SPK	102	Effective Speaking .....	3	0	3
ECO	110	Micro-Economics .....	3	0	3
			18	0	18

#### Spring Semester

ENG	220	Communicating About Values .....	3	0	3
#BUS	270	Management Science .....	3	0	3
BUS	249	Personnel Management .....	3	0	3
ECO	111	Macro-Economics .....	3	0	3
Elect 1 of the following:					
CST	118	Computer Programming—COBOL .....	(2)	(2)	(3)
CST	115	Computer Programming—PASCAL .....	(2)	(2)	(3)
		Business Elective .....	(3)	(0)	(3)
			14-15	0-2	15

Total Credits: 66-67

# Take these courses in sequence. They are not offered in all semesters.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.



# MARKETING

## EMPHASIS OF MARKETING/MANAGEMENT

### FIRST YEAR

#### Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
BUS 100 Accounting I .....	4	0	4
BUS 118 Business Law I .....	3	0	3
BUS 141 Marketing .....	3	0	3
ENG 110 Written Expression I .....	3	0	3
*BUS 112 Quantitative Business Methods .....	2-3	0	2-3
	15-16	0	15-16

\*Depending on Mathematics entrance testing scores and Math background, the student will take: MAT 090A and QBM or QBM or Introduction to Business

#### Spring Semester

BUS 120 Business Law II .....	3	0	3
BUS 249 Personnel Management .....	3	0	3
ECO 110 Micro Economics .....	3	0	3
PSY 110 General Psychology .....	3	0	3
SPK 102 Effective Speaking.....	3	0	3
	15	0	15

### SECOND YEAR

#### Fall Semester

#BUS 229 Advertising .....	4	0	4
CST 107 Business Appl. Micro Computer .....	3	0	3
BUS 152 Selling Fundamentals.....	3	0	3
PHS 111 Physical Science for Today.....	2	2	3
BUS Business Elective .....	(3-4)	0	(3-4)
ENG 220 Communicating About Values .....	3	0	3
	18-19	2	19-20

#### Spring Semester

#BUS 129 Consumer Behavior .....	3	0	3
BUS 259 Business Report Writing.....	3	0	3
#BUS 242 Marketing Seminar.....	3	0	3
BUS 245 Management: A Behavioral Approach .....	3	0	3
#BUS 264 Retailing .....	3	0	3
Mathematics or Science Elective .....	(3-4)	(0-3)	(3-4)
	18-19	(0-3)	18-19

Total Credits: 67-70

#Take these courses in sequence. They are not offered in all semesters.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.



# RETAIL MANAGEMENT

## EMPHASIS OF MARKETING/MANAGEMENT

### FIRST YEAR

#### Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
BUS 100 Accounting I .....	4	0	4
BUS 118 Business Law I .....	3	0	3
BUS 141 Marketing .....	3	0	3
ENG 110 Written Expression I .....	3	0	3
*BUS 112 Quantitative Business Methods .....	2-3	0	2-3
	15-16	0	15-16

\*Depending on Mathematics entrance testing scores and Math background, the student will take: MAT 090A and QBM or QBM or Introduction to Business

#### Spring Semester

#BUS 264 Retailing .....	3	0	3
BUS 120 Business Law II .....	3	0	3
#BUS 129 Consumer Behavior .....	3	0	3
ECO 110 Micro Economics .....	3	0	3
Social Science Elective .....	3	0	3
SPK 102 Effective Speaking.....	3	0	3
	18	0	18

### SECOND YEAR

#### Fall Semester

CST 107 Business Appl Micro Computer .....	3	0	3
#BUS 265 Retail Merchandising .....	3	0	3
BUS 152 Selling Fundamentals.....	3	0	3
BUS 259 Report Writing .....	3	0	3
** Math or Science Elective.....	3-4	0-3	3-4
	15-16	0-3	16-17

#### Spring Semester

#BUS 130 Retail Management .....	3	0	3
BUS Business Elective .....	3-4	0	3-4
BUS 245 Management: Behav. Approach .....	3	0	3
ENG 220 Communicating About Values .....	3	0	3
†PHS 111 Physical Science .....	(3-4)	(2-3)	(3-4)
	15-17	2-3	15-17

Total Credits: 64-69

†Students who are planning to transfer will be advised to take PHS 113...116 Physical Science

\*\*Recommended that the student consider MAT 117, 124, or 145 when selecting a Math course.

#Take these courses in sequence. They are not offered in all semesters.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

# REAL ESTATE

## EMPHASIS OF MARKETING/MANAGEMENT

### FIRST YEAR

#### Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
BUS 100 Accounting I .....	4	0	4
BUS 118 Business Law I .....	3	0	3
BUS 141 Marketing .....	3	0	3
ENG 110 Written Expression I .....	3	0	3
*BUS 112 Quantitative Business Methods .....	2-3	0	2-3
	15-16	0	15-16

\*Depending on Mathematics entrance testing scores and Math background, the student will take: MAT 090A and QBM or QBM or Introduction to Business

#### Spring Semester

#BUS163 Real Estate Salespersons .....	4	0	4
CST 107 Business Applications on Microcomputer .....	3	0	3
BUS 152 Selling Fundamentals .....	3	0	3
BUS 120 Business Law II .....	3	0	3
PSY 110 General Psychology .....	3	0	3
	16	0	16

### SECOND YEAR

#### Fall Semester

#BUS164 Real Estate Brokers .....	4	0	4
BUS 259 Report Writing .....	3	0	3
SPK 102 Effective Speaking .....	3	0	3
PHS 111 Physical Science .....	2	2	3
ECO110 Micro Economics .....	3	0	3
	15	2	16

#### Spring Semester

BUS 229 Advertising .....	4	0	4
ENG220 Communicating About Values .....	3	0	3
BUS 262 Small Business Management .....	3	0	3
Math/Science Elective .....	3-4	0-3	3-4
Select one of the following			
#BUS176 Real Estate Finance .....	(3)	(0)	(3)
or			
#BUS161 Real Estate Appraisals .....	(3)	(0)	(3)
	16-17	0-3	16-17

Total Credits: 63-65

#Take these courses in sequence. They may not be offered in all semesters.

§Offered evenings only.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.





# OFFICE TECHNOLOGIES

DEPARTMENT CHAIRPERSON, Patricia Franks  
Business Building, Room 108  
Telephone 771-5137

ACADEMIC ADVISING, Evelyn Katusak  
Business Building, Room 104  
Telephone 771-5174

Broome Community College offers three degree options of study in Office Technologies: Executive Secretary, Office Services Assistant, and Word/Information Processing. The department also offers a one-year certificate in Office Technologies. Graduates of the options usually obtain immediate employment as stenographers, secretaries, office assistants, or word processors.

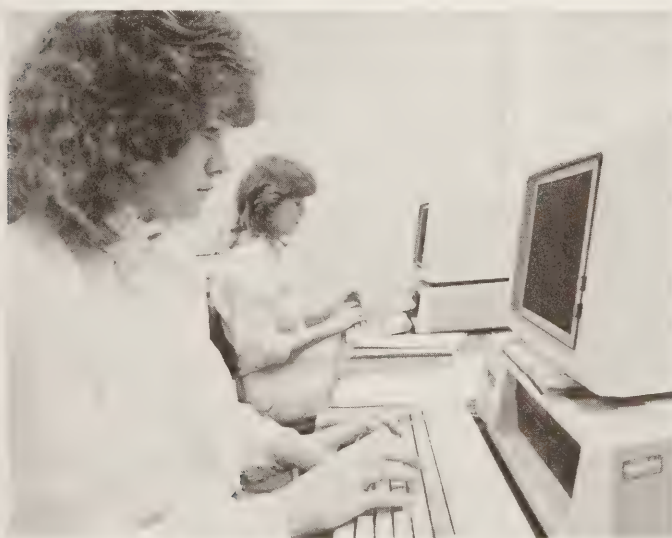
Executive Secretarial students study terminology in such fields as law, education, insurance, real estate, and investments as well as technical terminology so that they can understand the specialized language used in the professions, government, and business firms as well as the specialized language used in engineering and such new fields as the emerging electronic office.

Office Services Assistant students study a variety of courses including accounting, keyboarding and office management. The graduates of the Office Services Assistant option, with its emphasis on machine transcription, text editing concepts, and equipment, should find employment in word processing centers and other areas of office service work.

Word Processing option students concentrate their study in such areas as word processing concepts, text editing functions and applications, business computer applications, data entry, and the administration of electronic offices. These graduates are prepared to handle the basic operations and administrative duties of the integrated electronic office.

The faculty of this department places the responsibility of class attendance upon the student, who should attend classes regularly and on time. Faculty will inform students of the College's and department's attendance and academic dismissal policies. Whenever a faculty member feels that a student has been absent or tardy to the extent that it may be detrimental to the student's academic standing, the faculty member will inform the department chairperson, who will in turn meet with the student concerned for appropriate action.

Non-traditional students and part-time students should meet with the academic advisement coordinator in Room 103 of the Business Building (phone 771-5174) for academic advisement prior to registering for classes. These students must refer to course descriptions to be certain they meet prerequisite requirements prior to registering for courses. If a student fails DOT 101A Typewriting or DOT 109 Basic Transcription twice, he/she will be dismissed from the program. If the student fails DOT 110 Shorthand twice, he/she will be dismissed from the Executive Secretarial option. The student will be given an opportunity to choose another option.



# EXECUTIVE SECRETARY

FIRST YEAR  
Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
*DOT 101 A, B, C, Typewriting (5-week courses) OR .....	2	3	3
*DOT 102 A, B, C, Typewriting (5-week courses)			
DOT 109 Basic Transcription .....	3	0	3
*DOT 110 Shorthand OR .....	2	3	3
*DOT 111 Shorthand & Transcription			
\$DOT 130 Freshman Orientation .....	½	0	½
ENG 110 Written Expression I .....	3	0	3
+BUS 112 Quantitative Business Methods .....	2	0	2
BUS 118 Business Law I .....	3	0	3
	15½	6	17½

\*Student's background will determine placement.

\$DOT 130 Freshman Orientation meets every other week for one hour.

+MAT 090A placement prerequisite

## Spring Semester

DOT 102 A, B, C, Typewriting (see above) OR .....	2	3	3
Business Elective .....	3	0	3
DOT 111 Shorthand & Transcription (see above) OR .....	2	3	3
Business Elective .....	3	0	3
‡DOT 137 Word Processing I .....	1	4	1
‡DOT 138 Word Processing II .....	1	4	1
‡DOT 139 Word Processing III .....	1	4	1
DOT 151 Business Communication .....	3	0	3
Social Science Elective .....	3	0	3
	11-13	4-10	15

‡Each course is a 5-week course.

## SECOND YEAR

### Fall Semester

DOT 230 Advanced Shorthand .....	2	3	3
‡DOT 235 Executive Transcription .....	1	4	1
‡DOT 243 Records Management .....	3	0	1
ENG 220 Communicating About Values .....	3	0	3
ECO 110 Introduction to Micro-Economics OR .....	3	0	3
ECO 111 Introduction to Macro-Economics			
DOT 262 Dynamics of Success	1	0	1
Lab Science Elective .....	2-3	2-3	3-4
Liberal and General Studies Elective .....	3	0	3
	18-19	7-8	18-19

‡Each course is a 5-week course.

### Spring Semester

DOT 211 Advanced Typewriting .....	2	2	3
DOT 215 Info. Processing Applications ...	3	0	3
##DOT242 Office Procedures .....	3	0	3
##DOT260 Model Office .....	0	4	2
*Mathematics or Science Elective .....	2-3	0-3	3-4
BUS 100 Accounting I .....	4	0	4
	14-15	6-9	18-19

\*MAT 113 or higher

##Interns will take DOT 275 & DOT 275L in place of DOT 242 & DOT 260.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

# OFFICE SERVICES ASSISTANT

## FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
*DOT 101 A, B, C, Typewriting (5-week courses) OR	2	3	3
*DOT 102 A, B, C, Typewriting (5-week courses)			
DOT 109 Basic Transcription	3	0	3
\$DOT 130 Freshman Orientation	½	0	½
ENG 110 Written Expression I	3	0	3
+BUS 112 Quantitative Business Methods	2	0	2
BUS 118 Business Law	3	0	3
Lab Science Elective	2-3	3-6	3-4
	15½-16½	3-6	17½-18½

\*Student's typing background will determine placement in DOT 101 or DOT 102.  
\$DOT 130 Freshman Orientation meets every other week for one hour.  
+MAT 090A Placement prerequisite

## Spring Semester

DOT 102 A, B, C, Typewriting (See above)	2	3	3
OR			
Business Elective	3	0	3
‡DOT 137 Word Processing I	1	4	1
‡DOT 138 Word Processing II	1	4	1
‡DOT 139 Word Processing III	1	4	1
DOT 151 Business Communications	3	0	3
*Math or Science Elective	2-3	0-3	3-4
Liberal and General Studies Elective	3	0	3
	14-15	4-0	15-16

‡Each course is a 5-week course.  
\*MAT 113 or higher

## SECOND YEAR

### Fall Semester

DOT 211 Advanced Typing	2	2	3
DOT 236 Machine Transcription	3	2	4
BUS 100 Accounting I	4	0	4
ECO 110 Introduction to Micro-Economics	3	0	3
ENG 220 Communicating About Values	3	0	3
	15	4	17

### Spring Semester

DOT 215 Info Processing Applications	3	0	3
##DOT242 Office Procedures	3	0	3
‡DOT 243 Records Management	3	0	1
##DOT260 Model Office			
BUS 101 Accounting II	4	0	4
ECO 111 Introduction to Macro-Economics	3	0	3
DOT 262 Dynamics of Success	1	0	1
	15	4	17

‡Each course is a 5-week course.  
##Interns will take DOT 275 and DOT 275L in place of DOT 242 and DOT 260.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

# WORD/INFORMATION PROCESSING\*\*

## FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
*DOT 101 A, B, C, Typewriting (5-week courses) or	2	3	3
*DOT 102 A, B, C, Typewriting (5-week courses)			
DOT 109 Basic Transcription	3	0	3
\$DOT 130 Freshman Orientation	½	0	½
ENG 110 Written Expression I	3	0	3
+BUS 112 Quantitative Business Methods	2	0	2
Lab Science Elective	2-3	2-3	3-4
DOT 141 Word/Information Processing Concepts	3	0	3
	15½-16½	5-6	17½-18½

\*Student's typing background will determine placement in DOT 101 or DOT 102.  
\$DOT 130 Freshman Orientation meets every other week for one hour.  
+MAT 090A Placement prerequisite.

## Spring Semester

DOT 102 A, B, C, Typewriting (see above)	2	3	3
or			
Business Elective	3	0	3
‡DOT 137 Word Processing I	1	4	1
‡DOT 138 Word Processing II	1	4	1
‡DOT 139 Word Processing III	1	4	1
DOT 151 Business Communications	3	0	3
BUS 100 Accounting I	4	0	4
*Social Science Elective	3	0	3
	13-14	4-7	16

‡Each is a 5-week course.  
\*From a restricted list.

## SECOND YEAR

### Fall Semester

DOT 215 Information Processing Applications I	3	0	3
DOT 236 Machine Transcription	3	2	4
ENG 220 Communicating About Values	3	0	3
BUS 101 Accounting II	4	0	4
or			
Business Elective	3	0	3
*MAT 117, 124, or 145	3-4	0	3-4
	15-17	6-8	16-18

\*MAT 090B Prerequisite

### Spring Semester

DOT 220 Information Processing Applications II	3	0	3
##DOT242 Office Procedures	3	0	3
‡DOT 243 Record Management	3	0	1
##DOT260 Model Office	0	4	2
Liberal and General Studies Elective	3	0	3
DOT 262 Dynamics of Success	1	0	1
Social Science Elective	3	0	3
	16	4	16

‡Each is a 5-week course.  
##Interns will take DOT 275 and DOT 275L in place of DOT 242 and DOT 260.  
\*\*Pending approval of the State Education Department.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.



# OFFICE TECHNOLOGIES CERTIFICATE

## INTRODUCTORY COURSES

	Hours per Week		Credits per Semester
	Class	Lab	
*DOT 101 A, B, C, Typewriting (5-week courses) or.....	2	3	3
*DOT 102 A, B, C, Typewriting (5-week courses)			
DOT 109 Basic Transcription .....	3	0	3
§DOT 130 Freshman Orientation	½	0	½
BUS 112 Quantitative Business Methods .....	2	0	2
ENG 110 Written Expression I .....	3	0	3
PSY 110 General Psychology OR.....	3	0	3
Liberal and General Studies Elective			
	12½	3	14½

\*Student's background will determine placement.

§DOT 130 Freshman Orientation meets every other week for one hour.

## ADDITIONAL COURSES

DOT 102 A, B, C, Typewriting (see above) .....	2	3	3
or			
Business Elective .....	3	0	3
‡DOT 137 Word Processing I .....	1	4	1
‡DOT 138 Word Processing II .....	1	4	1
‡DOT 139 Word Processing III .....	1	4	1
DOT 151 Business Communications .....	3	0	3
‡DOT 243 Records Management .....	3	0	1
BUS 118 Business Law I or .....	3	0	3
Business Elective			
Liberal and General Studies Elective .....	3	0	3
	14-16	4-7	16

‡Each course is a 5-week course.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

# TRAVEL AND HOTEL TECHNOLOGY

DEPARTMENT CHAIRPERSON, To be announced  
ACADEMIC ADVISOR, Robert Newcomb  
Business Building, Room 103  
Telephone 771-5008

## HOTEL TECHNOLOGY: HOTEL/RESTAURANT MANAGEMENT- HOTEL EMPHASIS

COORDINATOR, Donnamarie Battisti  
Business Building, Room 106  
Telephone 771-5008

FIRST YEAR			Hours per Week		Credits per
Fall Semester			Class	Lab	Semester
BUS	110	Accounting I.....	4	0	4
BUS	118	Business Law I.....	3	0	3
BUS	141	Marketing.....	3	0	3
ENG	110	Written Expression I.....	3	0	3
BUS	112	Quantitative Business Methods.....	2	0	2
			15	0	15
Spring Semester					
TAE	101	Principles of Food Service.....	1	6	3
TAE	103	Front Office Management.....	3	0	3
ECO	110	Intro to Micro Economics.....	3	0	3
BUS	249	Personnel Management.....	3	0	3
*Math or Science Elective.....			(3-4)	(0-3)	(3-4)
			16-17	6-9	18-19
SECOND YEAR					
Fall Semester					
TAE	256	Banquets & Catering.....	1	6	3
PSY	110	General Psychology.....	3	0	3
TAE	208	Hotel/Restaurant Law.....	3	0	3
SPK	102	Effective Speaking.....	3	0	3
TAE	212	Hotel Marketing & Advertising.....	3	0	3
TAE/	BUS	Elective.....	(3-4)	(0-3)	(3-4)
			16-17	6-9	18-19
Spring Semester					
ENG	220	Communicating About Values.....	3	0	3
TAE	242	Sales Promotions & Convention Service.....	3	0	3
TAE	206	Housekeeping/Prop. Mgt.....	3	0	3
TAE	256	Food/Beverage/Labor Costs.....	3	0	3
TAE	298	Hotel Internship.....	3	0	3
*Math or Science Elective.....			(3-4)	(0-3)	(3-4)
			18-20	0-3	18-20



# HOTEL TECHNOLOGY: HOTEL/RESTAURANT MANAGEMENT- RESTAURANT EMPHASIS

COORDINATOR, Donnamarie Battisti  
Business Building, Room 106  
Telephone 771-5008

## FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
BUS 100 Accounting I.....	4	0	4
BUS 118 Business Law I.....	3	0	3
BUS 141 Marketing.....	3	0	3
ENG 110 Written Expression I.....	3	0	3
BUS 112 Quantitative Business Methods.....	2	0	2
	15	0	15

## Spring Semester

TAE 101 Principles of Food Service.....	1	6	3
TAE 105 Front House Management.....	3	0	3
ECO 110 Intro to Micro Economics.....	3	0	3
TAE 298 Restaurant Internship I.....	3	0	3
*Math or Science Elective.....	(3-4)	(0-3)	(3-4)
	16-17	6-9	18-19

## SECOND YEAR

### Fall Semester

TAE 256 Banquets & Catering.....	1	6	3
PSY 110 General Psychology.....	3	0	3
TAE 207 Hospitality Principles.....	3	0	3
BUS 249 Personnel Management.....	3	0	3
SPK 102 Effective Speaking.....	3	0	3
*Math or Science Elective.....	(3-4)	(0-3)	(3-4)
	16-17	6-9	18-19

### Spring Semester

TAE 265 Food/Beverage/Labor Costs.....	3	0	3
ENG 220 Communicating About Values...	3	0	3
TAE 242 Sales Promotions/ Convention Service.....	3	0	3
TAE 206 Housekeeping/Property Management.....	3	0	3
TAE 298 Restaurant Internship II.....	3	0	3
TAE/ BUS Elective.....	(3-4)	(0-3)	(3-4)
	18-19	(0-3)	18-19

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.



# TRAVEL AND TOURISM

COORDINATOR, Karen Sherwood  
Business Building, Room 106  
Telephone 771-5008

## FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
BUS 100 Accounting.....	4	0	4
BUS 118 Business Law I.....	3	0	3
BUS 141 Marketing.....	3	0	3
ENG 110 Written Expression I.....	3	0	3
*BUS 112 Quantitative Business Methods.....	2	0	2
	15	0	15

\*Depending on Mathematics entrance testing scores, the student will take: MAT 090A and QBM or QBM or Introduction to Business

## Spring Semester

TAE 102 Travel & Tourism.....	3	0	3
LOT 108 Keyboarding.....	1	0	1
BUS 120 Business Law II.....	3	0	3
SPK 102 Effective Speaking.....	3	0	3
MAT 139 Algebra.....	4	0	4
GEO 120 World Geography.....	3	0	3
OR			
SOS Social Science Elective.....	3	0	3
	17	0	17

## SECOND YEAR

### Fall Semester

TAE 117 Travel & Tourism II.....	3	0	3
TAE 217 Travel & Tourism III.....	3	0	3
BUS 152 Selling Fundamentals.....	3	0	3
PHS 113-116 Physical Science.....	3	3	4
BUS 259 Report Writing.....	3	0	3
	15	3	16

### Spring Semester

TAE 219 Travel & Tourism IV.....	3	0	3
BUS 211 Business App. Micro Comp. ....	3	0	3
BUS 262 Small Bus. Management.....	3	0	3
ENG 220 Communicating About Values.....	3	0	3
SOS 000 Social Science Elective.....	3	0	3
Select one of the following:			
BUS Business Elective.....	3	0	3
BUS Internship.....		0	3
	18	0	18

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.





# HEALTH SCIENCES

Opportunities for men and women interested in the health sciences field are provided in six areas - Dental Hygiene, Medical Assisting, Medical Laboratory Technology, Medical Record Technology, Nursing and Radiologic Technology. All Health Science associate degree programs are fully accredited. Graduates are prepared to work immediately after graduation in physicians' or dentists' offices, laboratories or hospitals. Graduates of these programs are also qualified to take whatever licensing or certification examination their professions require. The College also offers a Dietary Manager Certificate program for those working in the field.



## DENTAL HYGIENE

DEPARTMENT CHAIRPERSON, Dorothy J. Walsh  
Science Building, Room 108  
Telephone 771-5149

The Dental Hygiene curriculum is designed to prepare students for the contemporary practice of dental hygiene. The curriculum emphasizes the fundamental knowledge necessary for practice in a private dental office or similar clinical setting under the supervision of a dentist.

The dental hygienist performs various services, such as dental prophylaxis, topical fluoride applications, pit and fissure sealants, dental radiographs and instruction in plaque control procedures. Successful completion of the curriculum permits one to take the required written and practical licensure examinations.

Dental Hygiene graduates averaged \$20,376 as starting salaries in 1987, encompassing a range from \$13,312 - 28,080.

Students must purchase instruments which range from \$300-\$350, in addition to textbooks and supplies. They are also expected to purchase clinic attire, protective eye glasses, disposable treatment gloves, masks and malpractice insurance for clinical practice. Students are also required to complete the Dental Hygiene Departmental Health Questionnaire and CPR prior to admittance to DEN 101 Dental Hygiene I.

Students who wish to pursue a career as a dental hygienist in public health, health management, health education or dental hygiene education are encouraged to transfer to a baccalaureate program after graduation.

The program is accredited by the Commission on Dental Accreditation, a specialized accrediting body recognized by the Council on Post-Secondary Accreditation and by the United State Department of Education.

### FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
BIO 131 Human Biology I .....	3	2	4
DEN 101 Dental Hygiene I .....	2	6	4
DEN 103 Oral Anatomy and Physiology .....	2	4	4
ENG 110 Written Expression I .....	3	0	3
	10	12	15

### Spring Semester

BIO 132 Human Biology II .....	3	2	4
DEN 102 Dental Hygiene II .....	4	8	6
DEN 106 Clinical Dental Radiography ....	1	2	2
DEN 110 Dental Materials .....	2	3	3
BIO 160 Microbiology .....	2	3	3
	12	18	18

### SECOND YEAR

#### Fall Semester

DEN 201 Dental Hygiene III .....	2	12	5
DEN 204 General and Oral Pathology ....	3	0	3
DEN 205 Periodontology .....	2	0	2
DEN 209 Nutrition .....	3	0	3
DEN 213 Public Health .....	2	2	3
SPK 102 Effective Speaking .....	3	0	3
	15	14	19

#### Spring Semester

DEN 202 Dental Hygiene IV .....	2	12	5
DEN 206 Dental Pharmacology .....	2	0	2
DEN 214 Dental Specialties .....	2	0	2
SOC 110 Introduction to Sociology .....	3	0	3
PSY 110 General Psychology .....	3	0	3
	12	12	15

NOTE: Students must have completed a course in CPR (Cardio-Pulmonary Resuscitation) prior to admittance to DH I in the Fall semester and must be re-certified prior to DH III. The department strongly recommends that the student have a vaccination against Hepatitis B prior to treating patients in DH II.

**GRADUATION REQUIREMENT: 67 CREDITS**

# MEDICAL ASSISTING

DEPARTMENT CHAIRPERSON, Teresa H. Buran  
Mechanical Building, Room 220  
Telephone 771-5261

A Medical Assistant is one of the most versatile of all the allied health professionals. There is a variety of employment opportunities available for individuals with associate degrees. These positions are in physicians' offices, medical centers, clinics, hospitals, armed services, laboratories and pharmaceutical companies. One can also find employment in public, industrial, school, and correctional health departments, as well as in the fields of research, publishing and teaching. A medical assistant can seek additional degrees in such fields as allied health services, health care management, and education. The program is designed to enable graduates to do both administrative assisting and clinical/laboratory assisting.

By studying specifically related subjects as medical assisting procedures, clinical laboratory procedures and human biology, students will acquire the knowledge and techniques to prepare patients for examinations and to assist the physician. These courses also prepare students to perform not only routine medical procedures but also electrocardiography, audiometry, urinalysis and hematological tests.

Courses in medical terminology, keyboarding, medical correspondence and medical office management prepare the student to conduct business and administrative duties. English, social sciences, psychology and medical law are included to provide a general background.

Directed Practice is an integral part of the curriculum as senior students participate in a 15 week externship program that requires a working experience in physicians' offices or other health care facilities.

The curriculum is accredited by the Committee on Allied Health Education and Accreditation in collaboration with the American Medical Association (AMA) and the American Association of Medical Assistants (AAMA). Graduates are awarded the Associate in Applied Science degree and may elect to take a national examination given by the AAMA to become Certified Medical Assistants. This CMA status is known throughout the country, recognizing the graduate as a competent professional and leads to improved career opportunities and higher salaries.

Starting salaries of program graduates average over \$11,000. The work week is usually less than 40 hours with fringe benefits such as medical care, medications and paid health insurance.



## FIRST YEAR Fall Semester

			Hours per Week		Credits per Semester
			Class	Lab	
BIO	131	Human Biology I.....	3	2	4
ENG	110	Written Expression I.....	3	0	3
MDA	102	Medical Assisting Science .....	2	0	2
MDA	104	Keyboarding and Medical Word Processing .....	2	3	3
MDA	114	First Aid and Personal Safety; Management of Emergencies .....	0	2	1
MRT	105	Medical Terminology I .....	2	0	2
†HSV	101	Cardio-Pulmonary Resuscitation .....	0	1	½
			12	8	15½

†This course will be given in clusters of 2 hours each of a total of 8 instructional hours.

## Spring Semester

BIO	132	Human Biology II .....	3	2	4
MDA	115	Medical Assisting Procedures I .....	3	2	4
MDA	106	Medical Correspondence and Communications .....	0	4	2
MRT	115	Medical Terminology II .....	2	0	2
SPK	102	Effective Speaking or .....	3	0	3
ENG	120	Written Expression II .....	11	8	15

## SECOND YEAR

### Fall Semester

CST	105	Understanding Computers .....	2	2	3
MDA	206	Medical Office Management ...	3	3	4
MDA	208	Medical Ethics, Law and Economics .....	3	0	3
#MDA	211	Medical Assisting Procedures II .....	2	4	4
PSY	110	Psychology .....	3	0	3
			13	9	17

### Spring Semester

MDA	201	Medical Assisting Procedures III .....	2	4	4
MDA	245	Directed Practice & Seminar ...	1	16	5
MDA	210	Pharmacology .....	2	0	2
SOC	110	Introduction to Sociology .....	3	0	3
			8	20	14

#It is strongly recommended that this course be taken the semester before MDA 245 Directed Practice.

**GRADUATION REQUIREMENTS: 61.5 CREDITS**





## MEDICAL LABORATORY TECHNOLOGY

DEPARTMENT CHAIRPERSON, Julia Peacock  
Titchener Hall, Room 221  
Telephone 771-5065

Medical Technology is a health profession which combines the best of several worlds. In this field, the basic sciences of Biology and Chemistry are merged with Medicine. Medical Technologists and Medical Laboratory Technicians perform biological tests in search of diagnostic clues as evidence of health or disease.

In the search for data on a patient's health, people working in this field may examine specimens through a microscope or perform, for example, the tests necessary to match a donated unit of blood to a patient in need of that unit. Or, they may identify the microorganisms associated with health and disease. They are also competent operators of the computers and complex electronic instrumentation which are used in most areas of today's laboratories.

Although they usually spend less time with patients than physicians and other health professionals, the Medical Technologist and Technician play a vital role in patient care. In many laboratories, the Medical Technologist and Technician performs the full range of laboratory testing in all six major areas of the laboratory, which are Hematology, Immunology, Microbiology, Body Fluids, Blood Banking, and Chemistry. In other laboratories, the technologists or technician can choose to "specialize" or concentrate study and work in only one of the areas listed.

While entry to the field may be accomplished at the Medical Laboratory Technicians (AAS Degree) level, a technician may choose to continue to advance, by education or experience, to the BS level, as a Medical Technologist, or as a specialist in any area they choose. Because of this diversity, many technicians find advancement in their profession well within their grasp.

Students are required to complete health information forms and must carry health insurance during their clinical training in our hospital affiliates.

Approximately two-thirds of practicing technologists work in hospital laboratories. Others are employed in physicians offices, clinics, commercial firms such as pharmaceutical companies, all types of research facilities, the armed forces, public health centers and in veterinary clinics. Many are teachers or serve in managerial positions. Still others are representatives for commercial suppliers or work in product development for those companies.

Wherever they work, the technicians and technologists in this field share a strong desire to help others, a love of challenge and responsibility, and the ability to complete a wide variety of scientific tests accurately and reliably.

This program is accredited by the Committee on Allied Health Education and Accreditation (CAHEA), as recommended by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Pre-admission advisement is recommended.

### FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
BIO 131 Human Biology I .....	3	2	4
CHM 145 Chemistry .....	3	3	4
ENG 110 Written Expression I .....	3	0	3
MAT 125 Statistics I Using Computer.....	3	1	3
MLT 110 Introduction to Medical Laboratory Technology .....	1	0	1
Social Science Elective .....	3	0	3
	16	6	18

### Spring Semester

BIO 132 Human Biology II .....	3	2	4
CHM 146 Chemistry .....	3	3	4
CHM 133 Survey of Organic Chemistry.....	3	4	4
Social Science Elective .....	3	0	3
ENG 120 Written Expression II or			
SPK 102 Effective Speaking.....	3	0	3
	15	9	18

### SECOND YEAR Fall/Spring Semester

	Hours per Day		Prac. Total	No. of Weeks	Credits per Semester
	Class	Lab			
MLT 201 Hematology/Coagulation .....	2	4	0	3	3
MLT 201P Hematology/Coagulation Practicum .....	0	0	30	3	3
MLT 202 Urinalysis/Body Fluids .....	2	4	0	1	1
MLT 202P Urinalysis/Body Fluids Practicum..	0	0	40	1	1
MLT 203 Microbiology .....	3	3	0	5	6
MLT 203P Microbiology Practicum .....	0	0	40	2	2
MLT 204 Phlebotomy .....	0	0	38	*	1
					17

\*Students will be gaining experience in Phlebotomy over a 3-week period.

**NOTE**-All classes, laboratories and practicum sessions (Prac) in the courses listed above and below meet every school day for the number of weeks indicated. Practicum sessions will be in area participating hospitals. One group of students will take the courses listed immediately above in the fall and those below in the spring. The other group will take the above courses in the spring and those listed below in the fall.

### Fall/Spring Semester

	Hours per Day		Prac. Total	No. of Weeks	Credits per Semester
	Class	Lab			
MLT 205 Immunology .....	2	4	0	3	4
MLT 206 Immunohematology	2	4	0	2	2
MLT 206P Immunohematology Practicum .....	0	0	35	2	2
MLT 207 Clinical Chemistry.....	2	4	0	5	5
MLT 207P Clinical Chemistry Practicum .....	0	0	35	3	3
CHM 220 Introduction to Instrumental Analysis.....	†				2
					18

†Students taking Instrumental Analysis will meet for 15 class hours and 45 laboratory hours over the 15-week semester.

### GRADUATION REQUIREMENTS: 71 CREDITS

# MEDICAL RECORD TECHNOLOGY

DEPARTMENT CHAIRPERSON, Mary Rosato  
Business Building, Room 031  
Telephone 771-5051

A medical record is the permanent report of a person's illness or injury kept to preserve information of medical, scientific and legal value. The record includes all medical reports which describe how the patient's illness was diagnosed and treated. Medical records are needed to help doctors diagnose and treat future illness, to verify insurance claims, to plan hospitals, to inform the public health officials, and to aid researchers.

The medical record technician works in the medical record department of a hospital, clinic, nursing home, school of veterinary medicine or other health facility and is responsible for many aspects of preparing, analyzing and preserving health information needed by the patients, by the hospital and by the public. The duties include reviewing medical records for completeness and accuracy and also translating diseases and operations into the proper coding symbols.

Other duties include filing medical records, preparing records for microfilm, typing reports of operations, X-rays and laboratory examinations, as well as histories, physical examinations and discharge summaries, compiling statistics of many kinds, assisting the medical staff by preparing special studies and tabulating data from records for research. Supervising the day-to-day operation of a medical record department, taking records to court and maintaining the flow of the total work picture.

Practice in the college medical record laboratory as well as in medical records departments of cooperating hospitals and other health care facilities, either within or outside the area, provides opportunities for additional educational experience which is the vital core of the program.

This curriculum is accredited by the Committee on Allied Health Education and Accreditation of the American Medical Record Association. Students in this program are eligible to take the Medical Record Accreditation Examination following graduation and upon completion receive the title of Accredited Record Technician (ART). Salaries for 1987 graduates ranged from \$13,488 to \$15,500 with an average of \$13,942. Graduates can continue medical record education toward a baccalaureate degree at four-year colleges.



## FIRST YEAR Fall Semester

			Hours per Week		Credits per Semester
			Class	Lab	
BIO	131	Human Biology I .....	3	2	4
ENG	110	Written Expression I .....	3	0	3
MRT	101	Medical Record Science I .....	2	0	2
MRT	101L	Medical Record Science I Lab...	0	2	1
MRT	105	Medical Terminology .....	4	0	4
CST	105	Understanding Computers .....	2	2	3
†HSV	101	Cardio-Pulmonary Resuscitation .....	0	1	½
			14	7	17½

†This course will be given in clusters of 2 hours each for a total of 8 instructional hours.

## Spring Semester

BIO	132	Human Biology II .....	3	2	4
MRT	107	Medical Transcription .....	2	2	3
MRT	110	Medical Record Science II .....	3	0	3
MRT	110L	Medical Record Science II Lab .....	0	2	1
SOC		Social Science Electives .....	6	0	6
			14	6	17

## Summer Term

\*MRT 144 Directed Practice ... 40 Hours per week for 4 weeks—4 Credits

## SECOND YEAR

### Fall Semester

BIO	140	Pathophysiology .....	3	0	3
MRT	202	Medical Record Science III .....	3	0	3
MRT	202L	Medical Record Science III Lab .....	0	2	1
MRT	208	Advanced Medical Transcription .....	1	2	2
MRT	222	Medical Legal Aspects .....	3	0	3
ENG	220	Communicating About Values .....	3	0	3
			13	4	15

### Spring Semester

MRT	210	Medical Record Science IV .....	2	0	2
MRT	210L	Medical Record Science IV Lab .....	0	2	1
MRT	295	Medical Record Seminar .....	2	0	2
MRT	236	Quality Assurance .....	2	2	3
MRT	216	Clinical Practicum .....	0	2	1
*MRT	245	Directed Practice .....	0	40	6
			6	46	15

\*This course is conducted in a six-week block time frame. Students will be in a participating facility 5 days a week/8 hours a day.

## GRADUATION REQUIREMENTS: 68.5 CREDITS



# NURSING

DEPARTMENT CHAIRPERSON, Janet H. Wright  
901 Front Street  
Telephone 771-5060

Broome Community College offers a two-year, college-based curriculum to prepare graduates for immediate entrance into the first level of registered nursing. Graduates of this curriculum are eligible to take the licensing examination for registered nurses. They are qualified for immediate employment in bedside nursing care, or they may wish to continue their education for the baccalaureate and higher degrees in the nursing field. The 1987 graduates of this program averaged \$18,040 in their starting salaries, which ranged from \$17,118 to \$20,925.

The curriculum operates as a college program, with classes and laboratories held on the campus. Clinical instruction is in the cooperating hospitals and nursing homes of the Triple Cities. The clinical experiences, which are an integral part of the Nursing curriculum, include caring for individuals in all age groups, as well as observation periods in community health and social agencies. Grading in the extended campus laboratory is on a satisfactory/unsatisfactory basis.

Enrollment in the Nursing curriculum requires that each student have a completed health form submitted to the Department Chairperson prior to the first clinical assignment.

Mature men and women are encouraged to enter this program along with recent high school graduates, whether they are married or single.

This program is accredited by the National League for Nursing.

**NOTE**—Each student enrolled in Nursing is expected to meet the Mathematics proficiency requirement. Also, a health examination and a medical insurance policy are required.



## FIRST YEAR

### Fall Semester

		Hours per Week		Credits per Semester
		Class	Lab	
ADN 100	Meeting Basic Human Needs <sup>1</sup> .....	4	0	4
ADN 100C	Extended Campus Lab <sup>1,2</sup> .....	0	6	2
BIO 131	Human Biology I .....	3	2	4
PSY 110	General Psychology .....	3	0	3
ENG 110	Written Expression I .....	3	0	3
HSV 101	Cardio-Pulmonary Resuscitation .....	0	1	.5
		13	5	16.5

### Spring Semester

ADN 102	Meeting Mobility Needs <sup>1</sup> .....	3	0	3
ADN 102C	Extended Campus Lab <sup>1,2</sup> .....	0	6	2
ADN 103	Nursing Issues I .....	2	0	1
ADN 298	Nursing Seminar III <sup>6</sup> .....	0	0	0
BIO 132	Human Biology II .....	3	2	4
PSY 210	Developmental Psychology .....	3	0	3
	Social Science Elective .....	3	0	3
		14	8	16

## SECOND YEAR

### Fall Semester

ADN 204	Regulatory Concepts <sup>1</sup> .....	3	0	3
ADN 204C	Extended Campus Lab <sup>1,2</sup> .....	0	4.5	1.5
ADN 205	Psychological Concepts I <sup>1</sup> .....	3	0	3
ADN 205C	Extended Campus Lab <sup>1,2</sup> .....	0	3	1
ADN 210	Family Centered Maternity Nursing <sup>1</sup> .....	3	0	3
ADN 210C	Extended Campus Lab <sup>1,2</sup> .....	0	4.5	1.5
ADN 298	Nursing Seminar III <sup>6</sup> .....	0	0	0
	Free Elective .....	3	0	3
		12	12	16

### Spring Semester

ADN 206	Concepts of Obstruction & Inflammation <sup>1</sup> .....	3	0	3
ADN 206C	Extended Campus Lab <sup>1,2</sup> .....	0	4.5	1.5
ADN 207	Oxygenation Concepts <sup>1</sup> .....	3	0	3
ADN 207C	Extended Campus Lab <sup>1,2</sup> .....	0	4.5	1.5
ADN 208	Psychological Concepts II <sup>1</sup> .....	3	0	3
ADN 208C	Extended Campus Lab <sup>1,2</sup> .....	0	3	1
ADN 297	Nursing Issues II .....	2	0	1
ADN 298	Nursing Seminar III <sup>6</sup> .....	0	0	0
ENG 220	Communicating About Values .....	3	0	3
		14	12	17

### Notes:

1. In order to progress, students must pass clinical course as concurrent course with lecture component.
2. S/U grade for these courses.
3. In order to progress, students must complete assignments in nursing skills center. Nursing skills center assignments are completed outside of class and clinical times.
4. Each student enrolled in Nursing is expected to meet the mathematics proficiency requirement.
5. Clinical experiences for Nursing students may be scheduled during evening hours on their regular extended campus lab days.
6. ADN 298, Nursing Seminar III, is required of all returning, transfer and challenge students.
7. The Nursing program must be completed in 4 academic years.

## GRADUATION REQUIREMENTS: 65.5 CREDITS



## RADIOLOGIC TECHNOLOGY

DEPARTMENT CHAIRPERSON, Nancy Button  
Business Building, Room 023  
Telephone 771-5070

Because 2200 hours of clinical practice are required in this curriculum, freshmen courses identified with the RAD designator will begin the week of registration, which is one week before the start of regular classes.

Radiologic Technology is a diverse profession. The radiographer must draw from the fields of communication, psychology, photography and the physical and biological sciences, while utilizing an investigative approach to perform the daily tasks. Radiographers are in demand in nearly every community - in hospitals, physicians' offices, clinics, government, education, industry and research.

The typical role of the radiographer consists of producing radiographs used in the diagnosis of disease and injury. In producing radiographs, the radiographer operates x-ray equipment, provides patient care, provides radiation protection, positions the patient for the examination, selects technical factors for radiographic quality, produces and processes radiographs, maintains quality control and also maintains patient records. Other duties include use of mobile X-ray equipment in the operating room, emergency room and at the patient's bedside.

A radiographer may continue education in areas such as ultrasound, nuclear medicine, special radiographic procedures, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), departmental administration, research, education and radiation therapy.

The Radiologic Technology program at Broome Community College consists of two years of combined academic and clinical education, the equivalent of 24 calendar months. Clinical education is provided in one of our cooperating hospitals. Based on a 40 hour/week schedule, students spend approximately one-third of their time in professional and general education courses at the college. The remaining two-third is spent in the college laboratory or in the hospital, obtaining a complete range of supervised clinical experiences including new imaging modalities.

The clinical experience is a viable part of the educational process. Upon completion of 2200 hours of clinical practice as well as the academic requirements of the program, the graduate is eligible to sit for the examination of the American Registry of Radiologic Technologists for certification and New York State licensure.

The curriculum is accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association.

Starting salaries for the 1987 graduates ranged between \$14,859 and \$26,686, with an average of \$20,011.

### FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
BIO 131 Human Biology .....	3	2	4
ENG 110 Written Expression I .....	3	0	3
RAD 100 Introduction to Radiologic Technology .....	2	3	3
RAD 101 Radiologic Technology I .....	3	1	3
RAD 103 Positioning I .....	0	3	1
RAD 105 Medical Terminology .....	1	0	1
RAD 110 Patient Care .....	1	1	1
RAD 115 Radiation Protection .....	1	0	1
†HSV 101 Cardi-Pulmonary Resuscitation .....	0	1	½
	14	11	17½

†This course will average out to one hour per week over the semester, but will probably be given in clusters of 3 hours each in the evening or of 7½ hours each on Saturday to make a total of 15 hours.

### WINTER TERM I

\*RAD 131 Clinical Education I ..... (40 hours per week)

### Spring Semester

BIO 132 Human Biology II .....	3	2	4
SOC 110 Intro. to Sociology .....	3	0	3
PHY 121 Physics for Radiographers .....	3	2	4
RAD 102 Radiologic Technology II .....	3	1	3
RAD 104 Positioning II .....	0	3	1
RAD 132 Clinical Education II .....	0	16	2
	12	24	17

### SUMMER TERM I

\*RAD 133 Clinical Education III ..... 0 40 3

### SECOND YEAR

#### Fall Semester

PSY 110 General Psychology .....	3	0	3
RAD 204 Advanced Positioning .....	1	2	2
RAD 210 Radiologic Physics .....	4	0	4
RAD 230 Clinical Education IV .....	0	16	2
Social Science Elective .....	3	0	3
ENG 220 Communicating About Values .....	3	0	3
CST 105 Understanding Computers .....	2	2	3
	13	20	17

### WINTER TERM II

\*RAD 231 Clinical Education V ..... (40 hours per week)

RAD 216 Imaging Modalities ..... 1 0 1

### Spring Semester

RAD 225 Special Radiographic Procedures .....	3	0	3
RAD 220 Radiologic Pathology .....	2	0	2
RAD 232 Clinical Education VI .....	0	24	3
RAD 245 Radiobiology .....	2	0	2
RAD 250 Image Assessment .....	2	1	2
RAD 295 Seminar in Radiography .....	2	0	2
	12	25	15

### SUMMER TERM II

\*RAD 233 Clinical Education VII ..... 0 40 3

\*Successful achievement is a GRADUATION REQUIREMENT

GRADUATION REQUIREMENTS: 71.5 CREDITS



# DIVISION OF LIBERAL AND GENERAL STUDIES

DIVISION DEAN, George Higginbottom  
Titchener Hall, Room 121  
Telephone 771-5031

The Division of Liberal and General Studies has a dual function. First, it manages a variety of degree programs ranging from traditional Arts and Sciences concentrations, to Mental Health, Special Careers, Communications Arts and Individual Studies. Second, it provides campus leadership in setting the standards for "general education" in all curricula: courses and learning objectives in humanities, social sciences, math, and science. Following some general information pertaining to academic advisement, each of the programs of the division is profiled.

## ACADEMIC ADVISEMENT

### FULL-TIME STUDENTS

Every full-time student is assigned a faculty advisor. Students are encouraged to meet regularly with their advisors. All students are required to complete with their advisors a Degree Advisement Contract prior to each semester's registration. Its purpose is to monitor the student's progress toward the degree.

The divisional office staff is available to deal with special problems relating to academic requirements and transfer. While the faculty and staff will make every reasonable effort to help students with academic planning, students must also assume responsibility for their programs and particularly, in familiarizing themselves with degree requirements.

### PART-TIME STUDENTS

Part-time day students who intend to matriculate in a degree program sponsored by the division should come to the office (Room 121 in Titchener Hall) to be assigned academic advisors. Students not interested in a degree, but merely seeking academic advice, may do so in the Liberal Arts Office. Part-time evening students will be advised by a divisional representative available in the Student Information Center, Room 101 of the Library.

## TRANSFER

Students who have earned A.A. or A.S. degrees at Broome Community College and who intend to go on for baccalaureate degrees are guaranteed transfer to some four-year college or university of the State University of New York (SUNY). While transfer students are usually given full junior standing, there is no guarantee that students entering specialized programs can complete all degree requirements in four semesters.

Students are urged to learn as much as they can about program requirements at the institution(s) to which they might transfer. For example, many four-year schools require foreign language. The decision to take a language at Broome Community College might thus be influenced by whether or not it is required at the college to which one intends to transfer.

The Liberal and General Studies Division has in force a number of guaranteed transfer arrangements with other public and private colleges. Inquiries about these agreements should be made in Titchener Hall, Room 121 or the Counseling and Student Development Center, Wales, Room 200.

## COMMUNICATION WITH STUDENTS

The division maintains bulletin boards in the Titchener Hall lobby and outside the office in Titchener Hall, Room 121. Students are urged to check the boards regularly for information pertaining to academic advisement, career planning, cultural events, transfer opportunities, convocations and lectures, concerts, and the like. Important notices and messages for students will also be posted. **Check the Boards!**



## CAREER PREPARATION

For a great number of careers a broad background in liberal studies, as is presented in the Associate in Arts (AA) and Associate in Science (AS) degree programs, is essential. Students are urged to utilize the college's resources thoroughly, and as early as possible, in locating useful information about their intended academic majors and their career aspirations.

The divisional advisement system is one which aims to match students with advisors who share their interests. If questions pertaining to career preparation, transfer opportunities and job placement cannot be answered by the faculty advisors, students will be directed to others who can. These are elements of our career guidance support system.

Faculty Advisor

Liberal & General  
Studies Division Office,  
Room T-121

Career Counselor/  
Transfer Counselor  
(Counseling Ctr. Rm W-200)

To start students thinking about a career and the preparation needed, a number of fields which suggests a liberal studies background are listed below. The college does not offer courses in all these areas, and in some cases the professional courses are taught only at the junior/senior level in baccalaureate programs.

Acting  
Advertisement  
Architecture  
Art  
Chiropractic  
Commercial Art  
Communications  
Community/Human Service  
Counseling  
Criminal Justice  
Dentistry  
Design  
Energy Research  
Environment  
Foreign Service  
Forestry  
Government Service  
Home Economics  
Interior Design  
International Business  
Journalism  
Labor Relations  
Law  
Management  
Library Science

Media Communications  
Medicine  
Mental Health  
Music  
Oceanography  
Optometry  
Paralegal  
Personnel  
Physical Therapy  
Psychologist  
Public Administration  
Public Relations  
Public Service  
Publishing  
Real Estate  
Recreation  
Social Work  
Scientific Research  
Sports Writing  
Teaching  
Technical Writing  
Translating  
Transportation  
Urban Planning  
Writer/Critic

## LIBERAL AND GENERAL STUDIES

The Liberal and General Studies curriculum is mainly a two-year university-parallel program designed for those who wish to continue their college education at a four-year school. Graduates of the College in its Liberal Arts program receive either the Associate in Arts or Associate in Science degrees, depending on which course of study they complete.

Students completing this curriculum, its science option or its other emphases will have a breadth of education that prepares them for many professional careers. The Science Option, for example, is excellent for those planning careers in forestry, chemistry, biology or medicine. Those aspiring to careers in the various professions will find alternatives in the Liberal and General Studies curriculum designed especially for them.

Students should be aware that many of these alternative curriculums presume a high level of preparation in the secondary school, and they should consult with faculty advisors or counselors when there is doubt about the adequacy of their pre-college academic background.

Prospective academic majors in the humanities, social sciences, biological sciences and physical education are also taught and advised by divisional faculty and staff. (Refer also to the Career Models on page 57-58.)

## ASSOCIATE IN ARTS DEGREE

	Credits Required
<b>English</b> .....	6
ENG 110 Written Expression I and ENG 220 Communicating About Values	
<b>History</b> .....	6
HIS 100 Rise of the West or HIS 115 Modern Global History plus one other history (HIS) course.	
<b>Mathematics or elective (as advised)</b> .....	0-8
Students who have completed fewer than 3 units of secondary school mathematics (through Intermediate Algebra or "Course III")* are required to take a minimum of 2 semesters of college level mathematics. Students who have completed 3 units of secondary school mathematics (through Intermediate Algebra or "Course III") are required to take one semester of college level mathematics. Students who have completed more than 3 units of secondary school mathematics (including Intermediate Algebra or "Course III") are not required to take additional mathematics. They may, however, elect an appropriate math course or an elective in another field.	
<b>Laboratory Science</b> .....	8
A full-year sequence of Biology, Chemistry, Physics or Physical Science. Acceptable sequences: BIO 111-112 General Biology I and II; BIO 131-132 Human Biology I and II; BIO 150-151 Microbiology and Aquatic Biology; CHM 141-142 General Chemistry; CHM 145-146 Chemistry; PHY 161-162 Physics; PHS 113, 114, 115, or 116 Physical Science (any 2).	
<b>Philosophy or Foreign Language Sequence</b> .....	6-8
Students are encouraged to take both, but they must complete a year (6-8 credit) of either a philosophy or a foreign language sequence.	
<b>Physical Education</b> .....	2
No more than 2 credits can be used to fulfill degree requirements.	
<b>Literature</b> .....	6
LIT 200 and LIT elective	
<b>Social Science</b> .....	6
Courses from the following disciplines: anthropology, economics, geography, political science, psychology, sociology, social sciences. These have ANT, ECO, GEO, POS, PSY, SOC, SOS designators. At least 3 credits must be from the following courses: ECO 110/111, HIS 130/131, SOS 111/120, POS 201/204	
<b>Electives</b> .....	14-24
Selections from approved listing preceding each semester's registration. Exceptions to receive approval of Dean of the LA Division.	
<b>Total number of credits</b> .....	64 minimum

## ASSOCIATE IN SCIENCE DEGREE: SCIENCE OPTION

This program is designed for students planning careers in biology and forest biology, chemistry and forest chemistry, the physical sciences, medicine, dentistry and related fields.

	Credits Required Per Year
<b>FIRST YEAR</b>	
<b>English</b> .....	3
ENG 110 Written Expression I	
<b>Literature</b> .....	3
LIT 200 Introduction to Literature	
<b>History</b> .....	6
HIS 100 The Rise of the West or HIS 115 Modern Global History and any other history (HIS) course.	
<b>Mathematics</b> .....	8
MAT 181 and 182 Calculus with Analytic Geometry I and II, or if a student is not prepared for these courses, he or she may take MAT 139 Algebra and or MAT 140 Trigonometry or MAT 161 Pre-Calculus mathematics first.	
<b>2 Laboratory Science Sequences</b> .....	16
BIO 111 and BIO 112 General Biology I and II and CHM 145 and CHM 146 Chemistry for those planning careers in medicine, veterinary medicine, dentistry, forest biology, marine biology, pharmacy or forest chemistry.	
<b>Physical Education</b> .....	2
Any PED courses (no more than 2 credits)	
<b>SECOND YEAR</b>	
<b>English</b> .....	3
ENG 220 Communicating About Values	
<b>Literature</b> .....	3
LIT elective	
<b>Social Science</b> .....	6
Courses from the following disciplines -anthropology, economics, geography, political science, psychology, sociology, social science. These have ANT, ECO, GEO, POS, PSY, SOC, and SOS designators. At least 3 credits must be from among the following courses: ECO 110/111, HIS 130/131, SOS 111/120, POS 201/204, SOC 110/111	
<b>2 Laboratory Science Sequences</b> .....	6
PHY 161 and 162 Physics and CHM 245 and 246 Organic Chemistry, for those planning careers in medicine, veterinary medicine, dentistry, forest chemistry, forest biology, marine biology, or pharmacy.	
<b>Mathematics, Philosophy or Foreign Language</b> .....	6-7
A student must fulfill the mathematics requirements (above) before taking a philosophy or foreign language course. If the student wishes to take a math course more advanced than MAT 182 then he or she with the dean's approval may take another mathematics course. If the math requirement has been completed and the student does not elect to take additional mathematics, then he or she is required to take philosophy or foreign language courses.	
<b>Total number of credits</b> .....	72 minimum

\*General Math and Business Math cannot be used in meeting this requirement.



# COMMUNICATION AND MEDIA ARTS

DEPARTMENT CHAIRPERSON, Paul Chambers  
Titchener Hall, Room 121  
Telephone 771-5163

PROGRAM COORDINATOR, John Butchko  
Titchener Hall, Room 103 Telephone 771-5101

The program of instruction in Communications and Media Arts comprises theoretical and practically-oriented course offerings in audio and visual modes of communication, including film, photography, audio and video production, and various type of written communication. Communications courses will emphasize acquisition of technical proficiency, theoretical knowledge and where appropriate, aesthetic sensibility.

The program aims, on the one hand, to prepare graduates for immediate employment in a variety of communications-related occupations, and on the other hand, for transfer to Baccalaureate programs.

Graduates entering the job market after earning the associate degree will seek employment as audio-visual production technicians, radio/TV production assistants, audio-visual coordinators, educational media technicians, and media sales representatives.

Those transferring to upper division colleges will major in audio-visual technology, film and photography, communications, radio and TV broadcasting, journalism, graphic design and reproduction, acting and advertising. Subsequently, they will seek employment as photographers, filmmaker/cinematographers, scriptwriters, media producers, broadcasters, newspaper reporters, studio technicians, graphic designers for A-V production, instructional media specialists, video and audio engineers, copy writers, media directors, production media specialists, and sales or marketing managers.



## FIRST YEAR Fall Semester

		Hours per Week		Credits per Semester
		Class	Lab	
ENG	110 Written Expression I .....	3	0	3
HIS	100 Rise of the West .....	(3)	(0)	(3)
or				
HIS	115 Modern Global History .....	(3)	(0)	(3)
COM	100 Intro to Mass Media .....	3	0	3
*COM	COM elective (choose one) .....	3	0	3
	-COM 110 Intro to Photography			
	-COM 125 Intro to Audio Theory & Production			
	-COM 130 Intro to Video Theory & Production			
MAT	Mathematics elective .....	4	0	4
PED	Physical Edu. elective .....	0	2	1
		16	2	17

\*Prospective journalism majors may enroll in ENG 163.

## Spring Semester

COM	COM elective (choose two) .....	6	0	6
	-COM 110 COM 112 COM 125			
	COM 130 ENG 163			
SOS	155 Media/Society .....	3	0	3
	Science Elective .....	3	3	4
PED	Physical Edu. elective .....	0	2	1
	ART/MUS/THR elective .....	3	0	3
		15	5	17

## SECOND YEAR

### Fall Semester

COM	200 Image Theory for Film, Photography and TV .....	3	0	3
PHI	Philosophy Elective .....	3	0	3
COM	COM electives (choose two) ....	6	0	6
	-COM 110 COM 112 COM 125			
	COM 130 COM 140 COM 203			
	ENG 168			
CST	105 Understanding Computers .....	2	2	3
		14	2	15

### Spring Semester

COM	115 Writing for the Media .....	3	0	3
COM	COM electives (choose two) ....	6	0	6
	-COM 110 COM 112 COM 125			
	COM 130 COM 135 COM 140			
	COM 200 COM 204 COM 210			
	COM 299 THR 266 ENG 170			
	ENG 175			
COM	250 Internship .....	(3)	(0)	(3)
ENG	220 Communicating About Values .....	3	0	3
		15	0	15

\*Social Sciences recommended.

# CRIMINAL JUSTICE

DEPARTMENT CHAIRPERSON, Francis J. Short  
Special Career Programs  
Mechanical Building, Room 214  
Telephone 771-5087

COORDINATOR, Richard Fitzpatrick  
Mechanical Building, Room 219  
Telephone 771-5029

This program is designed for full-time students desiring employment after two years of study. Careful planning and selection of courses is necessary to complete the program in two years. Consult the Criminal Justice Coordinator for specific details on selection of proper electives. Criminal Justice electives are described on page 90 and some Criminal Justice courses are given in the evening only. (Students entering in the spring semester may require more than four semesters to complete the degree.)



## FIRST YEAR Fall Semester

		Hours per Week		Credits per Semester
		Class	Lab	
ENG	110 Written Expression I .....	3	0	3
PSY	110 General Psychology .....	3	0	3
SOC	110 Introduction to Sociology .....	3	0	3
CRJ	101 Introduction to Criminal Justice .....	3	0	3
CRJ	100 Orientation .....	1	0	.5
CRJ	125 Penal Law .....	3	0	3
		15	0	15.5

## Spring Semester

SPK	102 Effective Speaking or POS 204 State/Local Gov't Correction .....	3	0	3
CRJ	105 Introduction to Corrections or CRJ 115 Juvenile Justice System .....	3	0	3
CRJ	212 Criminal Procedure and Constitutional Law (an "W" emphasis course) .....	3	0	3
PSY	Psychology Elective .....	3	0	3
SOC	Sociology Elective .....	3	0	3
SAC	101 or SAC 295 or PSY 100 .....	3	0	3
		18	0	18

## SECOND YEAR

### Fall Semester

	* Math/Science Elective .....	3-4	0	3-4
PHY	Elective in Philosophy .....	3	0	3
SOC	Elective in Sociology .....	3	0	3
CRJ	Elective (130 or 260) .....	3	0	3
CRJ	Criminal Justice Elective .....	3	0	3
POS	201 Intro Am Gov't or SPK 102 Eff. Speaking .....	3	0	3
PED	Physical Ed. Elective .....	0	2	1
		15-16	0	16-17

### Spring Semester

	Math/Science Elective .....	3-4	0-3	3-4
CRJ	Criminal Justice Elective (115 or 225) .....	3	0	3
CRJ	Criminal Justice Elective (215 or 230) .....	3	0	3
ENG	220 Communicating About Values .....	3	0	3
	**Free Elective .....	3	0	3
PED	Physical Ed. Elective .....	0	2	1
		15-16	0	16-17

\*CHM 121 Forensic Science recommended

\*\*Recommended PSY/SOC electives in order of desirability  
PSY 214, 217, 210, 211, 233, 227  
SOC 210, 111, 230

**General Education Requirements:** Students are responsible for fulfilling General Education requirements. See page 26.



EARLY CHILDHOOD EDUCATION

DEPARTMENT CHAIRPERSON, Francis J. Short  
Department of Special Career Programs  
Mechanical Building, Room 214  
Telephone 771-5087

COORDINATOR, Marilyn Schafer  
Mechanical Building, Room 219, Telephone 771-5029

The Early Childhood program leads to an Associate in Applied Science designed to prepare graduates for immediate employment or, in the case of those students who are already working in the Early Childhood field when they enroll, to improve their capabilities and increase their opportunities for advancement. It is open to students on both a full-time and part-time basis.

The starting salary for graduates of the AAS degree program in Early Childhood who go to work immediately after graduation as aides or assistant teachers varies between \$4 and \$5 per hour. Director's positions usually require a baccalaureate degree with an average salary of \$14,000 to \$17,000 a year. Two year college graduates sometimes become directors with an additional salary which will vary with teacher's salaries.

A professional portfolio of materials pertaining to the education of young children is required of all students in the program. Assistance is provided in all classes for development of this material.

A Red Cross Safety and First Aid Certificate is recommended. Arrangements for this training are made each semester by the department. Added fee required.

PLEASE NOTE

The curriculum display shown here is for full-time students, and they should be aware that careful advisement is necessary to enable them to be properly scheduled in this program to complete the work in two years. Anyone interested in enrolling as a full-time student should, therefore, consult with the coordinator or department chairman first. The curriculum display for part-time students appears on page 73.

**General Education Requirements:** Students are responsible for fulfilling general education requirements. See p. 26 of this catalog for reference, and consult with your academic advisor.



FIRST YEAR  
Fall Semester

			Hours per Week		Credits per Semester
			Class	Lab	
ENG	110	Written Expression I .....	3	0	3
PSY	110	General Psychology .....	3	0	3
*CDC	100	Introduction to Education of Young Children .....	2	2	3
†CDC		Elective or SOC 110 .....	2-3	0-2	3
CDC	175	Techniques of Observation and Evaluation .....	3	0	3
PED		Physical Ed. Elective .....	0	2	1
			13-14	4-6	16

Spring Semester

		Humanities Elective .....	3	0	3
PSY	211	Child Development .....	3	0	3
*CDC	120	Curriculum Development .....	2	2	3
CDC		Elective or SOC 110 .....	3	0	3
		†Related Elective .....	3	0	3
PED		Physical Ed. Electives .....	0	2	1
			14	4	16

SECOND YEAR

Fall Semester

*CDC	170	Practicum I (a "W" Emphasis Course) .....	3	0	3
†CDC		Early Childhood Elective .....	2-3	0-2	3
		Math/Science Elective .....	3-4	0-2	3-4
†CDC		Early Childhood Elective .....	2-3	0-2	3
		†Related Elective .....	3	0	3
			13-16	0-7	15-16

Spring Semester

ENG	220	Communicating About Values .....	3	0	3
*CDC	290	Practicum II .....			6
†CDC		Early Childhood Elective .....	2-3	2-0	3
		Math/Science Elective .....	3-4	0-3	3-4
			8-10	2-3	15-16

\*CDC COURSES ARE GIVEN MAINLY IN THE EVENING.

†CDC electives may be taken from among CDC 115 Music for Young Children, CDC 140 Art for Young Children, CDC 150 Motor Development, CDC 160 Nutrition for Young Children, CDC Child Health and Safety, CDC 210 Special Programs in Children, CDC 220 Issues and Innovations in Early Childhood, CDC 245 Social Development of Young Children, CDC 250 Language in Early Childhood, CDC 230 Working with Parents Programs, LIT 263 Children's Literature, CDC 190 Infants, Toddlers and the Family, THR 117 Creative Dramatics, THR 201 Children's Theatre. @Related electives may be taken from among PSY 214 Abnormal Psychology, PSY 217 Counseling and Interviewing, PSY 227 Behavior Modification, SOC 210 Crime and Deviant Behavior, SOC 230 Marriage, Family and Divorce, SAC 101 The Individual in a Changing Environment, SAC 295 Seminar in Human Potential or from other disciplines with permission of the coordinator or department chairperson.

## MENTAL HEALTH (COUNSELING PSYCHOLOGY AND SOCIAL WORK) EMPHASIS (Associate In Science Degree)

COORDINATOR, Charles Croll  
Room 227, Business Building  
Telephone 771-5298

This course of study is mainly for students who wish to transfer to upper division degree programs in mental health, such as social work and counseling psychology, and for those already in entry level positions in appropriate public and private agencies. Broad preparation during the first year is followed by greater concentration during the second year.

The number of students permitted to enter the second year of the program is limited by the availability of field placement openings in local agencies. Selection will take place during the spring semester of the Freshman year. Students who do not qualify can still complete A.A. degree requirements within the normal two-year period. For further details inquire at the Liberal and General Studies Division Office in Titchener Hall, (Room 121).

FIRST YEAR Fall Semester			Credits
ENG	110	Written Expression I.....	3
MAT		(MAT 124 Statistics recommended) .....	3
HIS	100	Rise of the West or HIS 115 Modern Global History.....	3
		Laboratory Science (BIO 131 Human Biology I recommended) .....	4
PSY	110	General Psychology .....	3
PED		Physical Education Elective .....	1
			17

Spring Semester			Credits
		Math or Liberal Arts Elective.....	3
SOC	110	Introduction to Sociology .....	3
		Laboratory Science (BIO 132 Human Biology II recommended) .....	4
HIS	186	Modern American Social History.....	3
PED		Physical Education Elective .....	1
		Humanities Elective (ART, MUS, THR, LIT, PHI).....	3
			17

SECOND YEAR Fall Semester			Credits
PSY	223	Intelligence and the Mentally Retarded .....	3
PSY	217	Counseling and Interviewing .....	3
PHI		Philosophy Elective .....	3
SOS	275	Community Internship .....	3
		†Liberal Arts Elective .....	3
			15

Spring Semester			Credits
PSY	227	Behavior Modification .....	3
PSY	214	Abnormal Psychology .....	3
SOC	250	Introduction to Social Work .....	3
SOS	250	Social Science Field Work* .....	3
PHI		Philosophy Elective.....	3
ENG	220	Communicating About Values .....	3
			15

\*This internship experience generally involves 6 hours a week in such agencies as Binghamton Psychiatric Center, Broome Developmental Center, Association for Retarded Children, Broome County Social Services, Broome County Office for the Aging, PROBE, Planned Parenthood, Binghamton City Schools.

†Students receiving credit for SOS 150 Introduction to Human Service Work may be used in any other program.

**NOTE**—Students interested in an emphasis in Social Work may substitute sociology or other approved elective.

## LIBERAL AND GENERAL STUDIES SPECIAL CAREER PROGRAMS

DEPARTMENT CHAIRPERSON, Francis J. Short  
Mechanical Building, Room 214  
Telephone 771-5087

### EARLY CHILDHOOD

Coordinator, Marilyn J. Schafer  
Mechanical Building, Room 219  
Telephone 771-5029  
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### CRIMINAL JUSTICE

Coordinator, Richard Fitzpatrick  
Mechanical Building, Room 219  
Telephone 771-5029  
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### FIRE PROTECTION TECHNOLOGY

Coordinator, Appointment Pending  
Mechanical Building, Room 214  
Telephone 771-5087  
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### PARALEGAL ASSISTANT

Coordinator, Matthew A. Vitanza  
Mechanical Building, Room 214  
Telephone 771-5087  
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### INDIVIDUAL STUDIES

Coordinator, Francis J. Short  
Mechanical Building, Room 214  
Telephone 771-5087  
Below

## INDIVIDUAL STUDIES

DEPARTMENT CHAIRPERSON, Francis J. Short  
Department of Special Career Programs  
Mechanical Building, Room 214  
Telephone 771-5087

To provide opportunities for students with unusual needs, or interests, Broome Community College allows **selected students** to structure individualized degree programs. The program requires the student to develop, with an advisor, an "area of concentration." **This area of concentration must be a cohesive program of study which the student can justify as having both educational and personal relevance.**

Completion of the Individual Studies Program can lead to an Associate in Science (AS) or Associate in Applied Science (AAS) degree, depending on the student's area of concentration. The AS degree program is designed for maximum transfer possibilities, and the AAS degree has better immediate employment opportunities. **Admission into the program requires development of a Plan of Studies which is approved by the department chairman. This plan is developed by the student with a specific educational or career goal in mind.**

*Associate in Science Degree\** (60 credits)

- 30 Credits in English, Humanities, Natural Sciences, Mathematics and Social Sciences.
- 30 Credits in student's Area of Concentration.

*Associate in Applied Science Degree\** (60 credits)

- Minimum of 20 semester credits in Liberal Arts and Sciences to include:  
6 Credits in Humanities (ENG 110 and ENG 220 required)  
6 Credits in Social Science (3 must be in designated General Education courses)  
8 Credits in Natural and Physical Science, including Mathematics
- 10 Credits of Technical Electives
- 30 Credits in student's Area of Concentration

For additional information contact the Department Chairperson.

\*Students in both AA and AAS programs must also satisfy General Education requirements. (see p. 26)



# MODEL PROGRAMS for Liberal Arts and General Studies Minimum Credit - 64 (Associate in Arts Degree)

These model programs are designed to help students with identifiable career or academic interests get an early start. All courses in the concentration are lower division offerings. You are advised to review transfer requirements of a range of baccalaureate granting colleges to ensure that your course selections align with transfer requirements. Assistance: Room T-121 or the Counseling and Student Development Center.

Students with advanced placement credit and those with 3½ units of academic mathematics will be able to take additional elective courses with their advisor's approval.

Students who enter with academic deficiencies may have to take more than the minimum 64 credits to earn the Associate of Arts degree. For example, students deficient in written communication will take ENG 090 Basic Language Skills before registering in ENG 110.

## ART

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	ENG 220	(3)
HIS 100 or 115	(3)	HIS elective	(3)
LIT 200	(3)	LIT elective	(3)
MAT electives	(0-8)	Laboratory Science Sequence	(8)
Philosophy or Foreign Language	(6-8)	Social Science electives	(6)
*PHI 111 and 112		ART electives	(9)
ART electives	(12)	ART 215, 216	
*ART 115, 101		*ART 105 or 106	
*ART 116, 140		Physical Ed. electives	(2)
Total	33-35	Total	36

## BUSINESS

(For Transfer to Baccalaureate Programs in Business)  
This model is appropriate for transfer to SUNY Binghamton School of Management

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	ENG 220	(3)
HIS 110 or 115 and elective	(6)	Laboratory Science sequence	(8)
*MAT 124 and 146 or 181	(6-7)	ECO 110 and 111	(6)
LIT 200	(3)	LIT elective	(3)
Philosophy or Foreign Language	(6-8)	Business electives	
Physical Ed. electives	(2)	*BUS 100 and 101	(8)
Business electives		*BUS 245	(3)
*BUS 110	(3)	†CST 105, 118, 110, 120	(3)
*BUS 118	(3)		
Total	32-34	Total	34

## CIVIL AND PUBLIC SERVICE

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	ENG 220	(3)
HIS 100 or HIS 115 and elective	(6)	Philosophy elective	(3)
*HIS 131		*PHI 206	
Philosophy or Foreign Language	(3-4)	Social Science elective	(3)
MAT electives	(0-6)	*POS 204	
*MAT 124		Related electives	(20)
Laboratory Science sequence	(8)	ECO 104, 110, 111	
Social Science elective	(3)	PSY 110	
*POS 201		SOC 110, 111	
Physical Ed. electives	(2)	BUS 100	
BUS 245, 257			
LIT 200	(3)	LIT elective	(3)
Total	34-35	Total	32

## CRIMINAL JUSTICE

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	Laboratory Science sequence	(8)
HIS 100 or 115	(3)	*CHM 120 and 121	
MAT electives	(6-8)	Philosophy or Foreign Language	(6-8)
†MAT 117		LIT elective	(3)
*MAT 124		Criminal Justice electives	(9)
LIT 200	(3)	ENG 220	(3)
POS 201	(3)	*SOC 210	(3)
Social Science Elective	(6)		
*PSY 110 and SOC 110			
Criminal Justice electives	(6)		
*CRJ 100			
Physical Ed. electives	(2)		
Total	32	Total	32

## CYTOTECHNOLOGY

(For Transfer to the Health Science Center at Syracuse  
"B" grades in science courses required)

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	BIO 131 and 132	(8)
BIO 111 and 112	(8)	LIT elective	(6)
CHM 145 and 146	(8)	Social Science electives	(6)
LIT 200	(3)	Physical Ed. electives	(2)
BIO 150	(4)	Philosophy or Foreign Language	(6-8)
MAT 124	(3)	ENG 220	(3)
HIS 100 or 115 and elective	(6)		
Total	35	Total	31-33

## DESIGN ARTS

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	Laboratory Science sequence	(8)
HIS 100 or 115 and elective	(6)	LIT electives	(6)
MAT electives	(6-8)	Social Science electives	(6)
Philosophy or Foreign Language	(6-8)	*PSY 110	
*PHI 111 and 112		Design electives	(12)
Design electives	(6)	*INT 110	
*ART 105, 106		†ART 115	
*INT 101		†CIV 159	
Physical Ed. electives	(2)	ENG 220	(3)
LIT 200	(3)		
Total	32-34	Total	32

## EARLY CHILDHOOD

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	HIS 110 or 115 and elective	(6)
MAT electives	(6-8)	Philosophy or Foreign Language	(6-8)
Laboratory Science sequences	(8)	LIT elective	(3)
*BIO 131 and 132		*LIT 263	
Social Science	(6)	Early Childhood electives	(9)
*PSY 110		Free electives	(6)
*SOC 110		†PSY electives	
Early Childhood Electives	(6)	†THR or MUS electives	
*CDC 110		ENG 220	(3)
Physical Ed. electives	(2)		
LIT 200	(3)		
Total	24	Total	33-35

## ELEMENTARY EDUCATION

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	LIT elective	(3)
HIS 110 or 115 and elective	(6)	ENG 220	(3)
MAT 119 and 120	(6)	Philosophy or Foreign Language	(6)
Laboratory Science sequence	(8)	*Philosophy 203 and elective	
LIT 200	(3)	HIS elective	(3)
Social Science Electives	(6)	Electives	(18)
*PSY 110		PSY 210, 211	
*SOC 110		*ART electives	
*GEO 110		*MUS electives	
PED electives	(2)	THR electives	
For Elementary Teachers			
Total	31	Total	33

## FOREST RESOURCES MANAGEMENT

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
*ENG 110	(3)	Philosophy or Foreign Language	(6-8)
HIS 110 or 115 and elective	(3)	ENG 220	(3)
MAT 181	(4)	LIT elective	(3)
		Social Science electives	(6)
		*ECO 110 POS 201 ENG 220	(3)
Laboratory Science sequences	(8)	Laboratory Science	(8)
*BIO 111 and 112		*PHY 161, CST 110	(3)
Physical Ed. electives	(2)	Free electives	(3)
LIT 200	(3)	†PSY 110, SOC 110, 111	
*CHM 145 and 146		*POS 204, MAT	
Total	34	Total	32

## FOREST TECHNOLOGY

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses (Wanakena)	(Credits)
ENG 110	(3)		
LIT elective	(3)		
MAT 139 and 140	(8)		
ECO 110 or 111	(3)		
BIO 111 and 112	(8)		
Electives	(6)		
*BIO electives			
Total	31		

\*These courses are "strongly recommended".  
† These courses are "recommended".

JOURNALISM

FIRST YEAR		SECOND YEAR	
Courses	(Credits)	Courses	(Credits)
ENG 110 (3)		Laboratory Science sequence	(8)
HIS 100 or HIS 115 and elective	(6)	LIT elective	(3)
MAT electives	(6-8)	Social Science electives	(6)
Philosophy or Foreign Language	(6-8)	Journalism electives	(12)
LIT 200	(3)	*ENG 164	
Physical Ed. electives	(2)	*ENG 165	
Journalism electives	(6)	†COM 110, 115	
*ENG 163		†SPK 102	
*COM 100		†COM 125, 130	
SOC 155	(3)	ENG 220	(3)
Total	32-34	Total	32

LANDSCAPE ARCHITECTURE

FIRST YEAR		SECOND YEAR	
Courses	(Credits)	Courses	(Credits)
ENG 110	(3)	LIT elective	(3)
		CIV 115, CIV 119, or 159	(4)
HIS 100 or 115 and elective	(6)	Social Science electives	(6)
MAT electives	(0-8)	ENG 220	(3)
*MAT 139, 40		Related courses	(16)
Laboratory Science sequence	(8)	*ART 105	
*BIO 111, 112		*CIV 111 *ART 106	
Philosophy or Foreign Language	(6-8)	*CST 110	
Physical Ed. electives	(2)	*PHS 116 *ART 115	
LIT 200	(3)	PHY 161	
†MAT 181, 182			
†INT 101			
Total	34-36	Total	32

MEDICAL TECHNOLOGY

(For Transfer to Upstate Medical Center  
"B" grades in science courses required)

FIRST YEAR		SECOND YEAR	
Courses	(Credits)	Courses	(Credits)
ENG 110	(3)	BIO 131	(4)
BIO 111 and 112	(8)	BIO 150	(4)
CHM 145 and 146	(8)	CHM 245	(5)
MAT 161 or equivalent	(4)	PHY 161	(4)
HIS 100 or 115 and elective	(6)	HIS elective	(3)
LIT 200	(3)	ENG 220	(3)
Philosophy or Foreign Language	(6-8)	Social Science electives	(6)
Physical Ed. electives	(1)	CHM 224	(4)
		LIT elective	(3)
		Physical Ed. electives	(1)
Total	36-38	Total	37

MUSIC AND MUSIC EDUCATION

FIRST YEAR		SECOND YEAR	
Courses	(Credits)	Courses	(Credits)
ENG 110	(3)	Laboratory Science sequence	(8)
HIS 100 or 115	(3)	History elective	(3)
MAT electives	(0-6)	LIT elective	(3)
Philosophy or Foreign language	(6-8)	Social Science electives	(6)
†Italian or		ENG 220	(3)
†PHI 111, 112		Physical Ed. electives	(1)
Physical Ed. electives	(1)	*Music electives	(9)
*Music electives	(12)	MUS 190 MUS 192	
MUS 190 MUS 192		MUS 193 MUS 194	
MUS 193 MUS 194		MUS 195 MUS 196	
MUS 195 MUS 196		*Applied Music	
*Applied Music		MUS 297 MUS 298	
MUS 197 MUS 198		*Introduction To Music	
*Music Theory		MUS 101	
MUS 105 MUS 106		(Additional courses)	
		MUS 180, MUS 185	
LIT 200	(3)		
Total	34	Total	33

MUSEUM CAREERS

FIRST YEAR		SECOND YEAR	
Courses	(Credits)	Courses	(Credits)
ENG 110	(3)	HIS elective	(3)
HIS 100 or 115	(3)	Laboratory Science sequence	(8)
MAT electives	(0-6)	LIT elective	(3)
*MAT 124		Social Science electives	(6)
Philosophy or Foreign Language	(6-8)	*ANT 110/111	
*Foreign Language		†PSY 110	
Physical Ed. electives	(2)	†SOC 110	
Electives	(7-10)	Electives	
*ART 101, 105		*INT 101, *ART 106	
*PHI 111/112		†BUS 110, †ECO 110	
LIT 200	(3)	ENG 220	(3)
Total	34	Total	33

\*These courses are "strongly recommended"

†These courses are "recommended"

PHYSICAL EDUCATION/RECREATION

FIRST YEAR		SECOND YEAR	
Courses	(Credits)	Courses	(Credits)
ENG 110	(3)	LIT elective	(6)
HIS 100 or HIS 115 and elective	(6)	Social Science electives	(6)
MAT electives	(0-6)	*SOC 110	
Philosophy or Foreign Language	(6-8)	*PSY 211 or 212, 223, 227	
*PHI 203 and elective		Laboratory Science sequence	(8)
PED 132	(2)	*BIO 131, 132	
Related electives	(0-6)	Related electives	(12)
*PSY 110		ENG 220	(3)
*ART, MUS, THR, SPK			
LIT 200	(3)		
Total	32-34	Total	32

PHYSICAL THERAPY

(For Transfer to Health Science Center at Syracuse  
"B" grades in all required courses)

FIRST YEAR		SECOND YEAR	
Courses	(Credits)	Courses	(Credits)
ENG 110	(6)	PHY 161 and 162	(8)
MAT 161		PSY 110 and 211	(6)
(181 recommended)	(4)	SOC 110	(3)
BIO 111 and 112	(8)	ENG 220	(3)
CHM 145 and 146	(8)	Philosophy or Foreign Language	(6-8)
HIS 100 or 115 and elective	(6)	LIT elective	(3)
LIT 200	(3)	Physical Ed. electives	(2)
Total	35	Total	32

PRE-LAW

FIRST YEAR		SECOND YEAR	
Courses	(Credits)	Courses	(Credits)
ENG 110	(3)	LIT elective	(3)
HIS 100 or 115	(3)	Social Science electives	(6)
MAT electives	(0-8)	Electives	(18)
Laboratory Science sequence *	(8)	POS 201, 204	
Foreign Language or Philosophy	(6-8)	ECO 110, 111, 104	
PHI 206, PHI 202		SOC 110, 111	
PHI 203		HIS 130, 131	
LIT 200	(3)	PSY 110	
PED elective	(1)	BUS 100	
ART, MUS, THR		ENG 220	(3)
		HIS elective	(3)
Total	32	Total	33

PUBLIC HISTORY

FIRST YEAR		SECOND YEAR	
Courses	(Credits)	Courses	(Credits)
ENG 110	(3)	LIT elective	(3)
HIS 100 or 115 and elective	(6)	*LIT 210, 211, 230	
MAT electives	(0-8)	Social Science electives	(6)
*MAT 124		*POS 201, 204	
Philosophy or Foreign Language	(6-8)	*PSY 110, SOC 110	
Physical Ed. electives	(2)	Laboratory Science sequence	(8)
Electives	(3-9)	Electives	(12)
*HIS 175		*SOC 120	
*POS 201		*HIS 130, 170, 180	
*POS 204		*SOC 120, 130	
LIT 200	(3)	†ECO 110, 111	
		ENG 220	(3)
Total	32	Total	32

SPECIAL EDUCATION

FIRST YEAR		SECOND YEAR	
Courses	(Credits)	Courses	(Credits)
ENG 110 (3)		LIT elective	(3)
HIS 100 HIS 115	(3)	ENG 220	(3)
MAT electives	(6)		
*MAT 113, 119, 114, 120		Social Science elective	(3)
Laboratory Science sequence	(8)		
*BIO 131, 132		Physical Ed. electives	(2)
Social Science elective	(3)	Related electives	(21)
*PSY 110		*PSY electives	
Philosophy or Foreign Language	(6-8)	*MUS, THR, ART	
*PHI 203	(3)	*HUS 120	
LIT 200	(3)	*SOS 290	
Total	32-34	Total	32

THEATER

FIRST YEAR		SECOND YEAR	
Courses	(Credits)	Courses	(Credits)
ENG 110	(3)	Laboratory Science sequence	(8)
HIS 100 or 115 and elective	(6)	LIT elective	(3)
MAT electives	(0-6)	ENG 220	(3)
Philosophy or Foreign Language	(6-8)	Social Science elective	(6)
Physical Ed. electives	(2)	†PSY 110	
Theater electives	(6)	Theater electives	(12)
*THR 190		*THR 190	
*THR 111, 112		*THR electives	
*THR 221			
LIT 200	(3)		
Total	32	Total	32



## SPECIAL TRANSFER AGREEMENT PROGRAMS

These are special Agreement Programs with other Colleges and Universities in which students spend either their first year or first two years at Broome and their last year(s) at another institution.

### HUMAN DEVELOPMENT AND FAMILY STUDIES (SUNY College of Human Ecology at Cornell)

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	LIT Elective	(3)
*HIS 100 or 115 and elective	(3)	MAT elective	(3)
MAT 124	(3)	PSY 211 and 212	(6)
PSY 110	(3)	Social Science Electives	(6)
*BIO 131 and 132	(8)	FREE Electives	(9)
Philosophy or Foreign Language	(6-8)	Physical Education	(1)
Physical Education	(1)	ENG 220	(3)
LIT 200	(3)		
<b>Total</b>	<b>33-35</b>	<b>Total</b>	<b>31</b>

### FOREST CHEMISTRY (SUNY College of Environmental Science and Forestry, Syracuse)

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	LIT Elective	(3)
*HIS 100 or 115 and elective	(6)	CHM 245, 246	(10)
BIO 111 and 112	(8)	PHY 161, 162	(8)
CHM 145 and 146	(8)	ECO 110	(3)
MAT 181	(4)	Social Science Elective	(3)
Philosophy Elective	(3)	Philosophy Elective	(3)
LIT 200	(3)	Physical Education	(2)
		ENG 220	(3)
<b>Total</b>	<b>35</b>	<b>Total</b>	<b>35</b>

### RESPIRATORY THERAPY (1 + 1) (Transfer to Upstate Medical Center)

FIRST YEAR Courses	(Credits)	
ENG 110	(3)	—GPA requirement is 3.0 (B)
*HIS 100 or 115 and elective	(6)	
Philosophy or Foreign Language	(3)	—Requires also observation or volunteer work in a respiratory therapy setting.
Laboratory Science	(8)	
*BIO 131 and 132		
MAT Elective	(3-4)	
Physical Education	(2)	
LIT 200	(3)	
<b>Total</b>	<b>31</b>	

### SOCIAL WORK (SUNY College of Human Ecology at Cornell)

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	LIT Elective	(3)
*HIS 100 or 115 and elective	(6)	Philosophy or Foreign Language	(6-8)
Laboratory Science sequence	(8)	CST 105 or 115	(3)
*BIO 131 and 132		ENG 220	(3)
MAT elective	(3)	PSY 210, 214	(6)
PSY 110 and SOC 110	(6)	SOC 230	(3)
LIT 200	(3)	ELECTIVES	(9)
Physical Education	(2)	SOC 210, POS 204	
		ECO 110/111, PSY 227, ANT 111	
<b>Total</b>	<b>31</b>	<b>Total</b>	<b>33</b>

### ENVIRONMENTAL AND FOREST BIOLOGY (SUNY College of Environmental Science and Forestry, Syracuse)

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	LIT Elective	(3)
*CHM 145 and 146	(8)	Philosophy or Foreign Language	(6-8)
BIO 111 and 112	(8)	CHM 245 and 246	(10)
MAT 181	(4)	Social Science Electives	(6)
HIS 100 or 115 and elective	(6)	PHY 161 and 162	(8)
Physical Education Elective	(2)	ENG 220	(3)
LIT 200	(3)		
<b>Total</b>	<b>34</b>	<b>Total</b>	<b>36-38</b>

### CONSUMER ECONOMICS AND HOUSING (SUNY College of Human Ecology at Cornell)

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(3)	LIT Elective	(3)
*MAT 145 and 146	(6)	ECO 110 and 111	(6)
HIS 100 or 115 and elective	(6)	CST 110	(3)
Laboratory Science Electives	(8)	PED	(1)
BIO 131/132 or CHM 145/146 or PHY 161/162		POS 201	(3)
Philosophy or Language	(6-8)	BUS 141	(3)
Physical Education	(1)	PSY 110	(3)
LIT 200	(3)	ENG 220	(3)
		SOC 110	(3)
		Free Electives	(3)
<b>Total</b>	<b>33-35</b>	<b>Total</b>	<b>31</b>

### INTERIOR DESIGN/HUMAN ENVIRONMENT (SUNY College of Human Ecology at Cornell)

FIRST YEAR Courses	(Credits)	SECOND YEAR Courses	(Credits)
ENG 110	(6)	LIT Elective	(3)
HIS 100 or 115 and elective	(6)	Philosophy or Foreign Language	(6-8)
ART 101	(3)	PSY 110	(3)
ART 105 and 115	(6)	Social Science Elective	(3)
INT 110	(3)	INT 101	(3)
INT 110	(3)	INT 111	(3)
Laboratory Science	(8)	ART 106	(3)
MAT 145	(3)	HIS Elective	(3)
Physical Education	(1)	Physical Education	(1)
LIT 200	(3)	ENG 220	(3)
<b>Total</b>	<b>36</b>	<b>Total</b>	<b>33</b>

(Freshman year BCC, Sophomore year at:)

**DELHI A&T**  
General Agriculture  
Animal Husbandry-Dairy  
**CANTON A&T**  
Mortuary Science

**WANAKENA**  
See Forest Technology  
Model Program

Details in Titchener Hall, Room 121

\*These courses are "strongly recommended"

†These courses are "recommended"

# TECHNOLOGY, ENGINEERING AND COMPUTING

In the area of technical education, the College offers 10 programs. One, Engineering Science, is in effect the first two years of an engineering curriculum. Students who do satisfactory work in it should experience little difficulty in transferring to engineering colleges at the third-year level.

Four others are designed to educate engineering technicians in the fields of Chemical Engineering Technology, Civil Engineering Technology, Electrical Engineering Technology and Mechanical Engineering Technology. Students in these programs are prepared for employment in various types of technical work immediately after graduation, although many students do transfer to four-year colleges.

The Computer Studies Department offers three programs -Computer Science, Computer Technology and Data Processing. The Computer Science program is designed to prepare graduates for transfer to four-year colleges, while graduates of the other two are prepared for immediate employment or possible transfer.

Other programs in the technical field offered by the College include Industrial Technology and Tool and Die Making.

## CHEMICAL ENGINEERING TECHNOLOGY

DEPARTMENT CHAIRPERSON, Dr. Harold H. Trimm  
Science Building, Room 108, Telephone 771-5009

The Chemical Engineering Technology curriculum is designed to meet the increasing demand for chemical technicians. Graduates are qualified for immediate gainful employment. Many of them have also continued their studies toward advanced degrees in chemistry at the junior level either as full-time students or on a part-time basis while employed. With additional physics and mathematics, some graduates have also continued their studies in chemical engineering. This background makes the Chemical Engineering Technology graduate highly sought after by employers and concurrently affords them the flexibility to advance academically and professionally.

Chemical technicians of both sexes have filled a vital manpower need in companies and organizations where background in various areas of chemistry is necessary or desirable. The Chemical Engineering Technician has opportunities to be employed in a wide variety of fields such as petroleum and other forms of energy, pharmaceuticals, plastic rubber, pulp and paper, and biological and electronic materials. Non industrial job opportunities exist in medical laboratories, municipal health and sanitation agencies, and state and federal environmental agencies.

Employers of chemical technicians include IBM (Endicott, Vermont, Mass., and Austin), Anitec, NYSEG, GE (Westover and Schenectady) Norwich-Eaton Pharmaceuticals, Sandia, Hadco, Bendix, Chenango Industries, International Paper, Eastman Kodak, Union Carbide, Grumman Aerospace, Sandoz Pharmaceuticals and many others.

Initial positions are usually in a research, development, process, quality control or analytical laboratory or in a pilot plant. In these positions a chemical technician may work for a senior staff member or be a member of a group working in a particular area. Experienced chemical technicians have become supervisors, group leaders, technical salesmen, and research and development technicians.

The 1987 graduates of this program averaged \$19,620 in starting salaries ranging from \$17,788 to \$21,500.

This curriculum is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET), and it leads to an Associate in Applied Science degree.



FIRST YEAR  
Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
ENG 110 Written Expression I .....	3	0	3
CHM 161 Chemistry .....	3	4	4
*MAT 161 Pre-Calculus .....	4	0	4
†PHY 141 Physics .....	3	2	4
	13	6	15

### Spring Semester

ENG 150 Technical Writing .....	3	0	3
CHM 162 Chemistry .....	3	4	4
*MAT 162 Applied Calculus I .....	4	0	4
†PHY 142 Physics .....	3	2	4
CST 140 Computer for Chemists .....	2	2	3
	15	8	18

## SECOND YEAR

### Fall Semester

CHM 251 Chemical Engineering Tech Seminar .....	1	0	½
CHM 261 Organic Chemistry .....	3	6	5
CHM 265 Analytical Chemistry .....	3	6	5
CHM 271 Chemical Processes .....	3	4	5
Social Science Elective .....	3	0	3
	13	16	18½

### Spring Semester

CHM 262 Organic Chemistry .....	3	6	5
CHM 266 Analytical Chemistry .....	3	6	5
CHM 272 Chemical Processes .....	3	4	5
Social Science Elective .....	3	0	3
	12	16	18

## GRADUATION REQUIREMENT: 69½ CREDITS

\*or MAT 181-182 Calculus with Analytic Geometry and I and II  
†or PHY 161-162 Physics



# CIVIL ENGINEERING TECHNOLOGY

DEPARTMENT CHAIRPERSON, Edward F. Dougherty  
Mechanical Building, Room 117  
Telephone 771-5223

The Civil Engineering Technology curriculum at Broome Community College is designed to prepare graduates for technical positions in the civil engineering and construction industries. The primary objective of the program is to train engineering technicians who will work for civil engineers, heavy and building contractors, surveyors and architects.

Starting positions may be in computer aided design (CAD), drafting design, estimating, testing of materials, specification writing, construction inspection, surveying, field engineering, sales and insurance adjusting. Excellent opportunities exist for advancement and promotion.

Starting salaries over the last year averaged \$16,131 and ranged from \$14,102 to \$24,960.

The Civil Engineering Technology Department offers the Associate in Applied Science degree in Civil Engineering Technology. This degree is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET).

Graduates of the program are eligible to become certified as Associate Engineering Technicians by the Institute for the Certification of Engineering Technicians.

Job opportunities exist locally, statewide and nationally. Large companies as well as smaller employers hire the graduates. Women graduates also find attractive job opportunities.

About 30% of the graduates transfer into Bachelor level programs.

In order for students to complete the curriculum in two years, the proper preparation is necessary. The minimum prerequisites are high school intermediate algebra, trigonometry and regents physics or their equivalents. For those wishing to enter the program without these prerequisites, Broome Community College offers the necessary preparatory courses.

The curriculum is comprised of various clusters of courses that result in technical areas of concentration. These clusters are in Surveying, Building and Contracting, Engineering and Architectural Drawing/Design, and Structural Design.



## FIRST YEAR Fall Semester

		Hours per Week		Credits per Semester
		Class	Lab	
CIV	111 Surveying I .....	2	6	4
CIV	115 Engineering Drawing I .....	1	3	2
CIV	110 Introduction to Technologies ...	1	0	½
ENG	110 Written Expression I .....	3	0	3
†MAT	161 Pre-Calculus .....	4	0	4
*PHY	141 Physics .....	3	2	4
		14	11	17½

## Spring Semester

CIV	112 Surveying II .....	1	3	2
CIV	119 Architectural Drafting .....	0	4	2
CIV	124 Mechanics .....	3	0	3
†MAT	162 Applied Calculus I .....	4	0	4
PHY	142 Physics .....	3	2	4
ENG	150 Technical Writing .....	3	0	3
		15	8	18

\*Students Entering the program without physics may elect to take PHY 100 Preparatory Physics I during the first semester in place of PHY 141 Physics. PHY 141 Physics may be taken during the spring semester and PHY 142 Physics and CIV 124 Mechanics during the summer. This would allow the student to graduate on schedule. Preparatory Physics is not applicable toward the degree.

†Or MAT 181-182 Calculus with Analytic Geometry I and II.

## SECOND YEAR

### Fall Semester

CIV	215 Strength of Materials .....	4	0	4
CIV	217 Materials Testing .....	2	3	3
CST	122 Scientific Computer Programming FORTRAN ...	2	2	3
	Social Science Elective			
	Technical Elective (Choose 1) ...	3	0	3
CIV	238 Architectural Design and Building Materials .....	(2)	(3)	(3)
CAD	205 Intro. to Computer Graphics with Arch. Applications .....	2	2	3
*MAT	Mathematics Elective .....	(4)	(0)	(4)
		13-15	5-9	16-17

### Spring Semester

†CIV	224 Reinforced Concrete Design ... or	2	3	3
CIV	226 Structural Steel Design .....			
	Social Science Elective .....	3	0	3
	(Choose 4 courses)			
CIV	216 Route Surveying .....	(2)	(3)	(3)
CIV	236 Construction Management .....	(3)	(0)	(3)
CIV	231 Estimating and Construction Planning .....	(2)	(3)	(3)
CIV	240 Soil Mechanics .....	(2)	(3)	(3)
CIV	237 Hydraulics .....	(2)	(3)	(3)
*MAT	Mathematics Elective .....	(4)	(0)	(4)
		13-16	9-15	18-19

†Waiver of this requirement by permission of department chairperson only.

\*For students planning to transfer to a 4-year college. Prior approval by department chairman required.

## GRADUATION REQUIREMENTS: 69½ CREDITS

## COMPUTER STUDIES

DEPARTMENT CHAIRPERSON, Paulette Gannett  
Applied Technology Building, Room 054  
Telephone 771-5022

The Computer Studies Department offers three different degree programs. In each one the student will learn to write modular structured programs which are well documented, easy to read and maintain. All courses will emphasize the importance of written and oral communication.

Students who choose a career in computing must, above all else, have the ability to think logically. They should be interested in organizing and analyzing information and should be able to pay close attention to detail and accuracy. Interesting and exciting careers are ahead for the student who has the personal drive to explore new fields of application and the ability to communicate with computer users.

The three degree programs are described below. The entrance requirements for each program are detailed on page 9 of this catalog. The exit requirements are shown on the pages following this one.

**THE COMPUTER SCIENCE PROGRAM** is designed to prepare graduates to transfer to four-year colleges and continue work toward a Bachelor of Science degree in Computer Science. During the first semester the student selects an emphasis (mathematics, technical, or business) and is encouraged to investigate transfer colleges and select elective courses with a future career in mind. The emphasis on mathematics, structured programming, science, and data structures allows transfer with Junior standing. Graduates who wish to postpone transfer can find interesting employment opportunities.

**THE COMPUTER TECHNOLOGY PROGRAM** places less emphasis on mathematics and more on computer hardware, digital logic and microprocessors. Graduates are prepared to work in a technical environment where a knowledge of the interface between hardware and software is necessary. Starting positions include computer operator, technician, engineering aide, associate field engineer. Average salary in 1986 was \$14,600. Graduates often find that more education is desirable. Transfer to four-year schools is possible and elective courses can be selected to allow transfer with Junior standing.

**THE DATA PROCESSING PROGRAM** places emphasis on solving business problems. Graduates are prepared to work in a business environment where a knowledge of computer programming and application software is necessary. Starting positions include computer operator, junior programmer, data entry technician, information processing equipment operator. Average salary in 1986 was \$15,067. This program meets the requirements of the DPMA (Data Processing Management Association) Model Curriculum for Computer Information Systems. With proper choice of electives, graduates who find that more education is desirable will be able to transfer all credits to institutions offering this four-year degree.

**STUDENTS CAN ATTEND FULL-TIME OR PART-TIME BOTH DAY AND EVENING** Special information for part-time students can be found on pages 70-78.



## COMPUTER SCIENCE (Associate in Science Degree)

The listing below shows the degree requirements. Electives are determined by the emphasis chosen. Students may select from Business, Technical, and Mathematics emphasis shown on the following pages.

	Credits
CST 114 Introduction to Computing .....	3
CST 132 Structured Programming in Pascal .....	4
MAT or CST Electives .....	9
Electives must include either CST 202 Data Structures with Advanced Pascal or CST 218 Advanced Cobol	
MAT 181 Calculus with Analytic Geometry 1 .....	4
MAT 182 Calculus with Analytic Geometry 2 .....	4
MAT 250 Discrete Mathematics .....	4
MAT 264 Linear Algebra .....	4
Laboratory Science Sequence .....	8
A full year sequence of physics, chemistry or physical science. Acceptable sequences: PHY 141-142, PHY 161-162, PHY 181-182 Physics CHM 145-146 Chemistry PHS 113-114-115-116 Physical Science (any 2)	
English 110 Written Expression .....	3
English 220 Communicating About Values .....	3
Social Science .....	6
Choose from ANT, ECO, GEO, POS, PSY, SOC, SOS. One Course must be from the following: ECO 110/111, HIS 130/131, POS 201/204, SOC 110/111, SOS 111/120.	
History .....	3
PHI 202 Logic .....	3
Physical Education .....	2
Approved Electives .....	6
See emphasis for recommended electives. All others must be approved by the Department Chairperson.	

**GRADUATION REQUIREMENT: 66 CREDITS**



## COMPUTER SCIENCE Business Emphasis (Associate in Science Degree)

### FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
CST 114 Introduction to Computing .....	2	2	3
CST 132 Structured Prog. in Pascal .....	3	2	4
ENG 110 Written Expression I .....	3	0	3
MAT 181 Cal I w/Analyt Geometry .....	4	0	4
*Social Science Elective .....	3	0	3
	15	4	17

### Spring Semester

CST 128 Structured Prog with COBOL .....	3	2	4
History Elective .....	3	0	3
MAT 182 Cal II w/Analyt Geometry .....	4	0	4
PHI 202 Logic .....	3	0	3
*Social Science Elective .....	3	0	3
Physical Education Electives .....	0	2	1
	16	4	18

### SECOND YEAR

#### Fall Semester

CST 218 Advanced COBOL .....	2	2	3
MAT 250 Discrete Mathematics .....	4	0	4
BUS 100 Accounting I .....	4	0	4
Lab Science (begin sequence) .....	3	3	4
ENG 220 Communicating About Values .....	3	0	3
	16	5	18

#### Spring Semester

MAT 264 Linear Algebra .....	4	0	4
BUS 101 Accounting II .....	4	0	4
Lab Science (complete sequence) .....	3	3	4
MAT/CST Elective .....	2-4	0-4	3-4
Physical Education Electives .....	0	2	1
	13-15	5-9	16-17

### GRADUATION REQUIREMENTS: 69-70 CREDITS

\*One Course must be from the following: ECO 110/111, HIS 130/131, POS 201/204, SOC 110/111, SOS 111/120.

See General Education Requirements on pg. 26.

## COMPUTER SCIENCE Mathematics Emphasis (Associate in Science Degree)

### FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
CST 114 Introduction to Computing .....	2	2	3
CST 132 Structured Prog in Pascal .....	3	2	4
MAT 181 Cal I w/Analyt Geometry .....	4	0	4
*Social Science Elective .....	3	0	3
	15	4	17

### Spring Semester

CST 202 Data Structures w/Adv Pascal .....	2	2	3
History Elective .....	3	0	3
MAT 182 Cal II w/Analyt Geometry .....	4	0	4
PHI 202 Logic .....	3	0	3
*Social Science Elective .....	3	0	3
Physical Education Electives .....	0	2	1
	15	4	17

### SECOND YEAR

#### Fall Semester

CST 170 Digital Logic .....	2	2	3
MAT 250 Discrete Mathematics .....	4	0	4
MAT 281 Cal III w/Analyt Geometry .....	4	0	4
PHY 161 Physics 1 .....	3	3	4
ENG 220 Communicating About Values .....	3	0	3
	16	5	18

#### Spring Semester

MAT 264 Linear Algebra .....	4	0	4
MAT 266 Intro to Higher Math .....	3	0	3
PHY 162 Physics 2 .....	3	3	4
CST 220 Microproc & Assembly Language .....	(2)	(2)	(3)
or			
MAT 282 Differential Equations .....	(4)	(0)	(4)
Physical Education Electives .....	0	2	1
	12-14	5-7	15-16

### GRADUATION REQUIREMENTS: 67-68 CREDITS

\*One Course must be from the following: ECO 110/111, HIS 130/131, POS 201/204, SOC 110/111, SOS 111/120.

See General Education Requirements on pg. 26.

## COMPUTER SCIENCE Technical Emphasis (Associate in Science Degree)

### FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
CST 114 Introduction to Computing .....	2	2	3
CST 132 Structured Prog in Pascal .....	3	2	4
ENG 110 Written Expression 1 .....	3	0	3
MAT 181 Cal I w/Analyt Geometry .....	4	0	4
*Social Science Elective .....	3	0	3
	15	4	17

### Spring Semester

CST 170 Digital Logic .....	2	2	3
CST 202 Data Structures w/Adv Pascal .....	2	2	3
*Social Science Elective .....	3	0	3
MAT 182 Cal II w/Analyt Geometry .....	4	0	4
PHI 202 Logic .....	3	0	3
Physical Education Electives .....	0	2	1
	14	6	17

### SECOND YEAR

#### Fall Semester

CST 180 FORTRAN, A Second Course .....	2	2	3
CST 220 Microproc & Assembly Language .....	2	2	3
MAT 250 Discrete Mathematics .....	4	0	4
PHY 161 Physics 1 .....	3	3	4
History Elective .....	3	0	3
	14	7	17

#### Spring Semester

CST 225 Introduction to Small Systems .....	2	2	3
MAT 264 Linear Algebra .....	4	0	4
PHY 162 Physics 2 .....	3	3	4
ENG 220 Communicating About Values .....	3	0	3
Physical Education Electives .....	0	2	1
	12	7	15

### GRADUATION REQUIREMENTS: 66 CREDITS

\*One Course must be from the following: ECO 110/111, HIS 130/131, POS 201/204, SOC 110/111, SOS 111/120.

See General Education Requirements on pg. 26.



## COMPUTER TECHNOLOGY (Associate in Applied Science Degree)

### FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
CST 114 Introduction to Computing .....	2	2	3
CST 132 Structured Prog in Pascal .....	3	2	4
ENG 110 Written Expression 1 .....	3	0	3
MAT 125 Statistics 1 Using Computers ...	3	1	3
PHY 161 Physics .....	3	3	4
	14	8	17

### Spring Semester

CST 170 Digital Logic .....	2	2	3
CST 202 Data Structures w/ Adv Pascal .....	2	2	3
*Social Science Elective .....	3	0	3
SPK 102 Effective Speaking .....	3	0	3
PHY 162 Physics .....	3	3	4
	12	7	16

### SECOND YEAR

#### Fall Semester

CST 180 FORTRAN, A Second Course .....	2	2	3
CST 220 Microproc & Assembly Language .....	2	2	3
MAT 145 Finite Mathematics .....	3	0	3
†Approved Elective .....	2-4	0-4	3-4
*Social Science Elective .....	3	0	3
	12-14	4-8	15-16

#### Spring Semester

CST 181 IBM Assembly Programming ...	2	2	3
CST 222 Topics in Computer Systems ...	2	2	3
CST 225 Introduction to Small Systems .....	2	2	3
†Approved Elective .....	2-4	0-4	3-4
ENG 220 Communicating About Values .....	3	0	3
	11-13	6-10	15-16

### GRADUATION REQUIREMENT: 63-65 CREDITS

†CST 158, CST 182, CST 211, CST 213, CST 214, CST 228, CST 297, MAT 161, MAT 181, MAT 182, CAD 200, CAD 201. Others require permission of Department Chairman.

\*One Course must be from the following: ECO 110/111, HIS 130/131, POS 201/204, SOC 110/111, SOS 111/120.

See General Education Requirements on pg. 26.



# DATA PROCESSING (Associate in Applied Science Degree)

## FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
CST 114 Introduction to Computing .....	2	2	3
CST 128 Structured Programming in COBOL .....	3	2	4
ENG 110 Written Expression 1 .....	3	0	3
MAT 125 Statistics 1 Using Computers ...	3	1	3
BUS 100 Accounting 1 .....	4	0	4
	15	5	17

## Spring Semester

CST 218 Advanced COBOL .....	2	2	3
CST 158 Spreadsheets-Financial Applications .....	2	2	3
*Social Science Elective .....	3	0	3
SPK 102 Effective Speaking .....	3	0	3
BUS 101 Accounting 2 .....	4	0	4
	14	4	16

## SECOND YEAR

### Fall Semester

CST 200 Systems Analysis 1 .....	2	2	3
CST 213 Database Systems .....	2	2	3
CST/ MAT/BUS Elective .....	2-4	0-2	3-4
**Physical Science Elective .....	3	3	4
*Social Science Elective .....	3	0	3
	12-14	7-9	16-17

### Spring Semester

CST 116 RPG II and RPG III .....	2	2	3
CST 201 Systems Analysis 2 .....	2	2	3
CST 214 Operations: Procedures Management .....	2	2	3
CST/ MAT/BUS Elective .....	2-4	0-2	3-4
ENG 220 Communicating About Values .....	3	0	3
	11-13	6-8	15-16

## GRADUATION REQUIREMENT: 64-66 CREDITS

\*\*ANY ONE of the following physical science courses: PHS 113, 114, 115, 126

\*One Course must be from the following: ECO 110/111, HIS 130/131, POS 201/204, SOC 110/111, SOS 111/120.

See General Education Requirements on pg. 26.



# ELECTRICAL ENGINEERING TECHNOLOGY

DEPARTMENT CHAIRPERSON, Alan C. Dixon  
Applied Technology Building, Room 222  
Telephone 771-5017

The Electrical Engineering Technology program at Broome Community College is made up of a planned sequence of college level courses leading to the Associate in Applied Science Degree. Engineering Technology emphasizes both the theory and application of established scientific and engineering methods and prepares the student for immediate employment or for transfer to an upper division school upon graduation.

The graduate is prepared to be the interface between the design engineer and skilled craftsman. He/She translates problems into functioning equipment using his/her knowledge of mathematics, physics, linear and digital electronics, microprocessor hardware and software, machines, robotics, process control, circuit analysis, and computer programming languages. He/She does this whether working in a small company as the only technician or in a large company as part of a team.

This program may require longer than two years to complete if an entering student has not completed math 1, 2, 3 and physics in high school. Students lacking any of these courses enter our pre-electrical technology program and may be required to take MAT 104 Basic Technical Math to prepare them for MAT 139 College Algebra and MAT 140 Trigonometry or PHY 100 Preparatory Physics and EET 110 Introduction to Electricity to prepare for Electrical Circuits and College Physics.

The department will tailor a program to match an individual student's background to the two year program. While an additional year may be required, each individual is assured the opportunity to earn the A.A.S. degree in Electrical Engineering Technology. As an accredited, state-of-the-art program, the department is proud of its graduates and their role in modern industry. Graduates are very successful and many rise to management positions in less than five years.

Graduates work for companies like New York State Electric and Gas, International Business Machines, Xerox, Eastman Kodak, General Electric, Universal Instruments, Singer-Link, Bell Laboratories, Raymond Corporation, Sandia National Laboratory, Digital Equipment Corporation, and Corning Glass.

Starting positions include engineering assistant, technical specialist for electronics, computers, field service, or sales. Starting salaries for graduates averaged \$18,556 in 1986, covering a range from \$9880 to \$22,000.

Many graduates find that more education is desirable and have successfully completed advanced study at State University of New York Colleges at Binghamton, Utica-Rome, and Buffalo, as well as at Rochester Institute of Technology, Clarkson University, and others.

Graduates with a minimum GPA of 2.5 can transfer with full junior status into a Bachelor of Technology program at a number of institutions. Some graduates prefer a pure engineering degree and transfer to accredited Bachelor of Science programs. Usual requirements are a minimum GPA of 3.2 and appropriate additional courses in Math (MAT 181, MAT 182, MAT 281) and Physics (PHY 181, PHY 182, PHY 281).

Students use excellent state-of-the-art computer facilities which include personal computers and three VAX computers interconnected by a local area network, Ethernet. The faculty, along with large, well equipped labs and highlighted by a 30 foot high open atrium create a learning atmosphere that is first class.

The program has grown in its 40 years to embrace the areas of microprocessors, robotics, and fiber optics. In its new facilities are housed specialized equipment including logic analyzers, development systems, robots, spectrum analyzers, digital signal processors, programmable component analyzers, power system simulators, and numerous CAD (computer aided design) workstations. The program and equipment remain current through the efforts of an experienced and dedicated faculty. The program was recently listed as the third largest Electrical Engineering Technology associate degree program in the country.

The program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET).

## PRE-ELECTRICAL ENGINEERING TECHNOLOGY

The following are suggested sequences of courses for students not prepared for entry into the regular Electrical Engineering Technology program. This sequence is for students who have not had the necessary high school math and physics. Each entering student is tested in the College Learning Center prior to scheduling. The actual student schedule is personalized by the department for each entering student.

### #1 - First Semester

	Hours per Week		Credits per Semester
	Class	Lab	
EET 100 Introduction to Electrical Engineering Technology .....	1	0	0.5
EET 110 Introduction to Electricity .....	3	0	3
EET 111 Electrical Construction Lab 1.....	1	3	2
MAT 139 Algebra .....	4	0	4
PHY 100 Preparatory Physics 1 .....	4	0	4
	13	3	13.5

### Second Semester

EET 112 Electrical Construction Lab 2.....	0	3	1
ENG 110 Written Expression .....	3	0	3
MAT 140 Trigonometry .....	4	0	4
PHY 101 Preparatory Physics 2 .....	4	0	4
	11	3	12

OR

### #2 - First Semester

EET 100 Introduction to Electrical Engineering Technology .....	1	0	0.5
EET 110 Introduction to Electricity .....	3	0	3
EET 111 Electrical Construction Lab 1.....	1	3	2
ENG 110 Written Expression .....	3	0	3
MAT 104 Basic Technical Mathematics ...	5	0	5
	13	3	13.5

### Second Semester

EET 112 Electrical Construction Lab 2.....	0	3	1
EET 130 Engineering Drawing .....	0	3	1
ENG 150 Technical Writing .....	3	0	3
MAT 139 Algebra .....	4	0	4
PHY 100 Preparatory Physics 1 .....	4	0	4
	11	6	13



## ELECTRICAL ENGINEERING TECHNOLOGY

### FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
CST 141 Fortran Programming with Graphic Applications .....	2	2	3
EET 111 Electrical Construction Laboratory 1 .....	1	3	2
EET 121 Electrical Circuits .....	4	3	5
EET 100 Introduction to Electrical Engineering Technology .....	1	0	½
ENG 110 Written Expression I .....	3	0	3
*MAT 161 Pre-Calculus .....	4	0	4
	15	8	17½

### Spring Semester

EET 112 Electrical Construction Laboratory II .....	0	3	1
EET 130 Engineering Drawing .....	0	3	1
EET 150 Electronic Devices .....	4	3	5
EET 162 Computer Aided Network Analysis .....	3	0	3
ENG 150 Technical Writing .....	3	0	3
*MAT 162 Applied Calculus I or .....	4	0	4
*MAT 181 Calculus I with Analytic Geometry 1 .....			
	14	9	17

### SECOND YEAR

#### Fall Semester

EET 243 Energy Conversions .....	4	3	5
EET 251 Electronic Circuitry .....	3	3	4
PHY 141 Physics .....	3	2	4
EET 267 Digital Electronics and Microprocessors I .....	3	2	4
	13	10	17

#### Spring Semester

EET 230 Electronic Design and Fabrication .....	0	3	1
EET 244 Control Systems .....	3	3	4
EET 252 Electronic Systems .....	3	3	4
PHY 144 Physics II-E .....	3	2	4
Social Science Electives .....	6	0	6
	15	11	19

### GRADUATION REQUIREMENT: 70½ CREDITS

\*Students should consult with the department chairman or his designee to determine the appropriate mathematics courses.



## ENGINEERING SCIENCE

DEPARTMENT CHAIRPERSON, Jack Foster  
ACADEMIC ADVISOR, William Beston  
Applied Technology Building, Room 124  
Telephone 771-5114

The Engineering Science curriculum is designed primarily to prepare graduates to continue their studies in the various engineering disciplines at four-year colleges and universities. The strong emphasis on mathematics and physics also allows graduates to transfer to these majors at four-year institutions, with junior-year standing. In addition, there are immediate employment possibilities for qualified graduates who wish to terminate or postpone further educational goals until a more opportune time.

Broome Community College is a member of the New York State Two-Year/Four-Year Engineering College Curriculum Study Committee. The purpose of this organization is to facilitate the transfer to four-year colleges, with junior-year standing, of two-year college graduates from engineering science programs. State University of New York at Binghamton, SUNY at Buffalo and SUNY at Stony Brook, Rensselaer Polytechnic Institute (RPI), Clarkson, Rochester Institute of Technology (RIT), Cornell, Syracuse and Union are among the members of the Study Committee who have agreed to give top priority to applicants with an A.S. degree in Engineering Science and who have been recommended by their department. Some students find it desirable to transfer out of state upon graduation. They, too, in most cases will transfer as full juniors and graduate with a Bachelor of Science in two more years. Broome Community College has an articulation agreement with Wilkes College in Pennsylvania and students have successfully transferred to places like Virginia Polytechnic Institute, Northwestern, Penn State, and the University of New Mexico. Feedback from these and other institutions to which Broome Community College students transfer indicates a high regard for the graduates and the quality of the Engineering Science program at BCC.

For students who wish to complete their education locally, Broome Community College and SUNY Binghamton have a cooperative admissions plan for entering freshmen. Students accepted in this program are guaranteed transfer to SUNY Binghamton as long as they maintain a grade point average of 3.00 at Broome.

Those graduates who prefer to seek immediate employment will find job opportunities as engineering technicians or as assistants to engineers involved in research and development. In addition, employment opportunities also exist which involve the application of mathematics and computer programming.

Students entering Broome Community College who wish to continue studying for their Bachelor's degrees in engineering, applied mathematics, or physics will find the Engineering Science program the most appropriate course of study. As a reasonable guideline for successful achievement in those rigorous programs, a students course work in high school should be above the 80% level in all areas. (See page 9 for specific requirements.)



### FIRST YEAR

#### Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
PED Physical Education Elective .....	0	2	1
CHM 145 Chemistry .....	3	3	4
MAT 181 Engineering Calculus with Analytic Geometry I .....	4	0	4
EGR 150 Engineering Graphics .....	1	2	2
PHY 181 Engineering Physics I .....	3	2	4
ENG 110 Written Expressions or Literature Elective .....	3	0	3
EGR 100 Orientation .....	3	0	0
	17	9	18

#### Spring Semester

CHM 146 Chemistry .....	3	3	4
†EGR 151 Applications in Engineering .....	2	2	3
MAT 182 Engineering Calculus with Analytic Geometry II .....	4	0	4
PHY 182 Engineering Physics II .....	3	2	4
Social Science Elective .....	3	0	3
EGR 100 Orientation .....	3	0	0
	18	7	18

### SECOND YEAR

#### Fall Semester

*EGR 281 Mechanics: Statics .....	3	0	3
EGR 285 Electrical and Electronic Circuits .....	3	0	3
†EGR 287 Engineering Science Laboratory I .....	0	3	1
MAT 281 Engineering Calculus with Analytic Geometry III .....	4	0	4
PHY 281 Engineering Physics III .....	4	0	4
Social Science Elective .....	3	0	3
EGR 200 Orientation .....	2	0	0
	19	3	18

#### Spring Semester

*EGR 282 Mechanics: Dynamics .....	3	0	3
EGR 289 Introduction to Microprocessors .....	2	0	2
EGR 288 Microprocessor Laboratory .....	0	3	1
MAT 282 Differential Equations with Linear Algebra .....	4	0	4
**Technical Elective .....	3	0	3
PED Physical Education Elective .....	0	2	1
ENG 220 Communicating About Values or Literature Elective .....	3	0	3
EGR 200 Orientation .....	2	0	0
	17	5	17

\*Organic Chemistry (CHM 245 and 246) may be substituted by students who are declared Chemical Engineering majors.

\*\*Students who plan to major in Mechanical or Civil Engineering should select EGR 283 Strength of Materials. Students majoring in all other engineering fields should elect EGR 284 Materials Science.

†Writing Emphasis course

### GRADUATION REQUIREMENT: 71 CREDITS

# MECHANICAL ENGINEERING TECHNOLOGY

DEPARTMENT CHAIRPERSON, William G. Kelly  
Mechanical Building, Room 117  
Telephone 771-5023

The continuing thrust for faster and more economical manufacturing methods, more reliable systems and the need for new, clean and consistent sources of energy has generated a continuing demand for mechanical engineering technicians with a high degree of technical competence.

The curriculum outline of courses encompasses a blend of mathematics, science, English, social science and technical specialties conceived to generate the necessary background for a variety of entry positions that usually align closely with and support mechanical engineering or related functions.

Recent graduates have been employed in areas of design-drafting, product design, quality control, metallurgy, heat-power, purchasing sales, technical writing, system maintenance and computer-aided design. Job opportunities exist both locally and nationally, and starting salaries for 1987 graduates ranged from \$16,640 to \$20,600 with an average of \$18,300.

Mechanical Engineering Technology is a particularly lucrative field for the female. Although few have ventured into the field, those who have are highly successful.

This curriculum is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET).

State University of NY at Binghamton offers a TAC/ABET-accredited Bachelor of Technology program, for which the normal admission requirement is an AAS degree in an engineering technology discipline such as Mechanical Engineering Technology.



## FIRST YEAR Fall Semester

	Hours per Week		Credits per Semester
	Class	Lab	
MET 110 Introduction to Technology ....	1	0	.5
*MAT 161 Pre-Calculus .....	4	0	4
MET 113 Engineering Drawing I .....	1	2	2
MET 121 Manufacturing Processes I .....	2	2	3
†PHY 141 Physics I .....	3	2	4
ENG 110 Written Expression I .....	3	0	3
Social Science Elective .....	3	0	3
	17	6	19½

## Spring Semester

CST 122 Scientific Computer Programming -			
FORTAN .....	2	2	3
MET 116 Engineering Drawing II w/CAD .....	1	2	2
MET 122 Manufacturing Processes II .....	1	3	2
PHY 142 Physics II .....	3	2	4
MET 132 Applied Mechanics .....	4	0	4
ENG 150 Technical Writing .....	3	0	3
	14	9	18

## SECOND YEAR

### Fall Semester

EET 183 Electricity .....	2	3	3
*MAT 162 Applied Calculus I .....	4	0	4
MET 235 Strength or Materials .....	2	3	3
MET 243 Fluid Mechanics .....	2	3	3
MET 263 Engineering Statistics, Quality Control .....	1	2	2
CAD 211 Computer Graphics .....	1	2	2
	12	13	17

### Spring Semester

EET 186 Electronics .....	2	3	3
MET 238 Mechanical Design .....	3	3	4
MET 252 Engineering Materials and Industrial Processes .....	3	3	4
MET 244 Thermodynamics .....	2	3	3
Social Science Elective .....	3	0	3
	13	12	17

\*Or MAT 181-182 Calculus with Analytic Geometry I and II. Prior approval by department Chairperson required.

†Students entering the program without physics may elect to take PHY 100 Preparatory Physics I during the first semester in place of PHY 141 Physics. PHY 141 Physics may be taken during the spring semester and PHY 142 and MET 132 Applied Mechanics during the summer session. This will enable the student to graduate on schedule. PHY 100 Preparatory Physics is not applicable towards the degree.

**GRADUATION REQUIREMENTS: 71½ Credits**





# PART 3

# PART-TIME STUDIES

## MEETING MANY NEEDS

People often think that higher education is available only for recent high school graduates. Broome Community College tries to reach out and meet the educational needs of ALL the people in Broome County. "Community" is part of the College's name and a large portion of its mission.

Anyone in the community may enroll as a part-time student, and BCC attracts a large number each year. The fall 1986 part-time enrollment was nearly 3,000 men and women, most of them for evening classes. These are mostly people who also work during the day. In recent years, the College has also increased its enrollment of part-time day students, over 700 last fall. The College has a strong commitment to serving the part-time student.

## PART-TIME STUDENTS

...are those who take fewer than 12 credits per semester, usually one or two courses. At BCC, part-time students can:

- Enroll in credit or non-credit mini courses.
- Take day or evening courses, or both.
- Attend classes in the fall, spring or summer semester.
- Earn a degree or not, as they see fit. Certificate programs are also available.
- Apply for financial aid-if carrying more than 6 credits.
- Receive academic advising and personal counseling.
- Borrow books from the College library.
- Carry one, two or three courses.
- Receive Veteran's benefits.
- Transfer credits to BCC earned at another college.
- Participate in the College-on-the-Weekend

### NOTE:

Many firms have a tuition-reimbursement plan that pays all or part of an employee's tuition and costs if his/her courses are job related. See your personnel office for more information.

The College conducts a special Information Session for new part-time students at the beginning of the fall and spring semesters to inform prospective students what programs are available, how to register, how to get started at BCC, and to answer their many questions. Contact the Information Center at 771-5150 for further details.

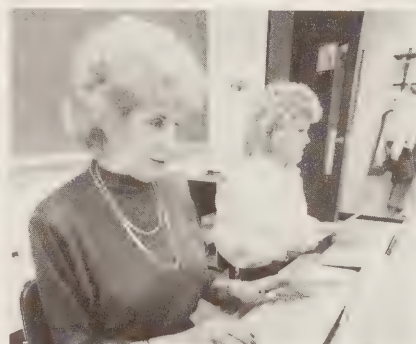
Part-time students seeking degrees are required to complete the College's General Education Program. Refer to p. 26 of this catalog, and seek guidance from your academic advisor or the Information Center for Evening and Part-Time Students.

## CREDIT/DEGREE PROGRAMS FOR EVENING PART-TIME STUDENTS

Broome Community College offers 20 degree programs which can be completed through part-time study. Most of the courses in these programs can be completed in evening or weekend study. On the pages listed, are displays for the following degree programs. Additionally, the College sponsors several Certificate Programs. These are detailed on page 18.

### Associate in Applied Science

1. Business (Accounting Emphasis) ..... Page 72
  2. Business (General Emphasis in Management and Marketing) ..... Page 72
  3. Early Childhood ..... Page 73
  4. Criminal Justice ..... Page 73
  5. Data Processing ..... Page 65
  6. Computer Technology ..... Page 64
  7. Fire Protection Technology .. Page 76
  8. Individual Studies ..... Page 56
- Industrial Technology
9. Chemical Emphasis ..... Page 74
  10. Civil Emphasis ..... Page 74
  11. Electrical Emphasis ..... Page 74
  12. Mechanical Emphasis ..... Page 75
  13. Production Management .. Page 75
  14. Paralegal Assistant ..... Page 76



### Associate in Arts

15. Liberal Arts and Sciences .... Page 77

### Associate in Science

16. Computer Science ..... Page 62-65
17. Liberal and General Studies Science Option ..... Page 77
18. Liberal and General Studies-Mental Health ..... Page 77
19. Individual Studies ..... Page 56

### Associate in Occupational Studies

20. Tool and Die Making

The Tool and Die Making Program is currently under revision. A new course sequence will be issued as soon as it is approved.



## COLLEGE ON-THE-WEEKEND

College-on-the-Weekend is one way Broome Community College has responded to the needs of a growing number of non-traditional students. Many people wishing to continue their education just cannot find the time during the week. Even evening classes pose a problem for working parents raising families.

Now you can earn a degree, part-time, attending classes every third weekend—six weekends each trimester. You can take one, two or three classes per term and earn your Associates Degree in as little as 2½ years. Weekend students may start the program at the beginning of any trimester which begin in September, January and May of each year.

Take one, two or three courses and progress at your own pace. You can even combine College-on-the-Weekend with weekday evening courses at BCC and move along more rapidly. Now you can return to college on your terms—with a schedule that fits your lifestyle.

Presently BCC College-on-the-Weekend students may earn an Associate in Applied Science Degree in Business with an emphasis in Management and Marketing or Accounting.

Various courses will be scheduled each trimester to ensure that all students will be able to take all necessary courses during the fall, spring or summer terms. Students with business courses from other colleges should call about credit transfer.

## WEEKEND SERVICES

All BCC student services will be available to College-on-the-Weekend students including:

- Financial Aid
- Learning Assistance Center
- Registrar and Admissions Personnel
- Library Services
- Study Areas
- Lab Proctors
- Computers
- Food Services
- Lounge



## ENROLLMENT

### FIRST-TIME ENROLLMENT

Those enrolling as part-time students for the first time at Broome Community College should be aware of the following services available to them:

- Information Sessions
- Registration and Advisement
- Financial Aid
- Veterans Benefits
- Counseling Services
- Math and Writing Labs
- Tutoring Services

**THE INFORMATION SESSIONS** are conducted prior to each term. At this time, one can learn about the College and its programs, how to register, how to schedule courses, and how to get answers to questions.

### REGISTRATION IS REQUIRED.

First-time students must register in person, by phone, or by mail. They must pay their tuition at the time they register in person, or when billed if registering by mail or phone.

**RESIDENCY REQUIREMENTS.** See page 14.

### CONTINUED ENROLLMENT

Those who are continuing their studies at the College as part-time students should always keep in close touch with their academic advisors and follow the procedure shown on pages 72 and 78 for their program of study, so that they do not overlook any courses they should take.

They are also eligible for the financial aid and veterans benefits of first-time, part-time students, and they have to comply with the same residency requirements. They may advance register for courses or register by mail, phone, or in person. Tuition must be paid at the time of registration, if in person, or when billed if registering by mail or phone.

## ADMISSION

### PART-TIME DAY AND EVENING STUDENTS

To be admitted to a degree program at the College all students, including part-time day and evening students, must submit an admission application form to the Admissions Office (Wales, Room 102). Part-time students can be admitted to a degree program at any time.

Although part-time students can take courses without being admitted, it is generally in the student's interest to seek admission early in their studies. This will ensure more accurate and comprehensive advisement. Also, most financial aid programs require formal admission to a degree program.

## ADVISEMENT

Academic advisement is available for all Broome Community College part-time

and evening students through the Information Center located on the main floor of the Library, Room 101. The Center provides information and guidance to students requiring assistance. Academic advisors for each department are available during scheduled evening hours to accommodate student inquiries. Contact the Information Center to make arrangements for individual advisement sessions. Counseling services are also available Monday through Thursday evenings in the Wales Building, Room 200.

**Evening Part-Time Students** who are nearing the completion of their certificate or degree program must consult with their academic advisor to ensure that degree requirements are met.

**Day Part-Time Students** seeking advisement should contact the chairperson of their academic departments. They should also apply to their chairperson when they are ready to receive their associate degrees.

## TUITION

Part-time students are those who carry fewer than 12 credit hours. Tuition and fees are listed on page 14.

**FINANCIAL AID** is available to part-time students who take 6 or more credits. Many companies have tuition reimbursement plans, and employees should familiarize themselves with their companies' policy. The College has a Financial Aid office in the Wales Building, Room 101 to answer questions about this. If one's company is paying, a letter to that effect should be brought to registration.

## GRADUATION

Awards for degrees and certificates for part-time students at Broome Community College are conferred at the end of each semester. Students who expect to complete course requirements must declare their candidacy for graduation by filing a "Graduation and Degree Checkout Form" in the Registrar's Office by October 7 for the Fall term, February 5 for the Spring term, and June 3 for the Summer term. This will initiate an official review of academic records and a formal letter of candidacy. Forms may be obtained at the Registrar's Office during the day and the Information Center during the evening. Students should contact their advisor prior to the semester of graduation.

## CREDIT FOR PRIOR LEARNING

### TRANSFER CREDITS

• Courses completed at another college prior to enrolling at Broome Community College will be considered for transfer credits. The student, however must initiate the request for this consideration.

• An official transcript must be on file for all students - part-time or full-time - prior to transcript review for transfer purposes.

## CREDIT FOR NON-ACADEMIC EXPERIENCE

Credit may be given for relevant experiential learning acquired in various contexts. A number of methods exist for receiving this credit, and details are available from the dean of the division in which one is pursuing a degree (See page 16).

Students may also find it advantageous to request credit by examination for a course in a field in which they have extensive knowledge and/or experience. By passing an examination, one can receive course credit. However, before being permitted to take an examination, students must satisfy a faculty committee as to their qualifications. Credit by examination is given only to matriculated students and a fee is charged.

## SUMMER SESSION

Each summer Broome Community College offers several terms of summer sessions from 6 to 8 weeks long, in day and evening sections. An announcement of the Summer Schedule and policies is available in April of each year.

## WEEKEND COURSES

In addition to a daily class schedule, the College also sponsors courses on Fridays and Saturdays. Schedules are printed each semester.

## DISPLAY OF CREDIT PROGRAMS

Following are displays of courses for the programs that the College offers to part-time students. Most of these are given in the evening, although some are day offerings. Students who pursue these programs should meet with their academic advisors or program coordinators to determine the best approach to meeting their individual needs.

The displays of courses in each curriculum are divided into three categories to assist the student in determining which courses to take and in what order.

**Category 1 - "Introductory Courses"** are entry-level courses in each program. They are frequently prerequisites for courses that must be taken later.

**Category 2 - "Additional Courses for Certificate"** are those which together with the Introductory courses will satisfy the requirements for the curriculum certificate. The certificate is about the mid-point for the attainment of an associate degree.

**Category 3 - "Remaining Courses for Degree"** lists the additional courses required for the completion of the associate degree.

Students should always consult with their advisors, as sometimes special course consideration is possible.

# ASSOCIATE IN APPLIED SCIENCE - BUSINESS

## ACCOUNTING EMPHASIS

DEPARTMENT CHAIRPERSON, Richard Behr, 771-5008

EVENING COORDINATOR, Robert Newcomb, 771-5008

**SUGGESTED SEQUENCE:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed.

Introductory Courses	Credits
BUS 100 Accounting I	4
BUS 112 Quan. Business Methods	2
BUS 118 Business Law I	3
BUS 141 Marketing	3
ENG 110 Written Expression I	3

### Additional Courses for Certificate

BUS 101 Accounting II	4
BUS 200 Intermediate Accounting I	4
BUS Business Elective	3-4
CST 107 Bus Aplctn Micro Comp	3
Social Science Elective	3
	<hr/> 32-33

### Remaining Courses for Degree

BUS 120 Business Law II	3
BUS 201 Intermediate Accounting II	4
BUS 205 Cost Accounting I	4
BUS 210 Managerial Accounting	
or	
BUS 206 Cost Accounting II	4
ENG 220 Communicating About Values	3
* 2 Mathematics	
or	
Science Electives	6-8
SPK 102 Effective Speaking	3
Business Elective	3-4
ECO 110 Micro Economics	3
AAS-Business (Accounting Emphasis)	
Minimum Semester Credits	<hr/> 65-69

\*Students who have passed Sequential Math III in high school will take MAT 145 Finite Mathematics. Those who have not passed it will take MAT 117 Elementary Finite Mathematics.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

## MANAGEMENT AND MARKETING EMPHASIS

**SUGGESTED SEQUENCE:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
BUS 100 Accounting I	4
BUS 101 Accounting II	4
BUS 112 Quan. Business Methods	2
BUS 118 Business Law I	3
ENG 110 Written Expression I	3
BUS 141 Marketing	3

### Additional Courses for Certificate

BUS 259 Report Writing	3
Liberal Arts Elective	3
Business Courses	7
	<hr/> 32

### Remaining Courses for Degree

BUS 120 Business Law II	3
Business Courses	8
Business Related Courses (see below)	3
Social Science Elective	3
ENG 220 Communicating About Values	3
BUS 115 Business Statistics	3
PHS 111 Physical Science for Today	3
Math or Science Elective	3-4
ECO 110 Micro Economics	3
CST 107 Bus Aplctn Micro Comp	3

### AAS in Marketing/Management

Minimum Semester Credits	<hr/> 67-68
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**Suggested Management Electives:** BUS 210, BUS 224, BUS 245, BUS 246, BUS 249, BUS 252, BUS 255, BUS 258, BUS 262, BUS 270.

**Suggested Marketing Electives:** BUS 110, BUS 120, BUS 129, BUS 131, BUS 135, BUS 152, BUS 154, BUS 229, BUS 238, BUS 262, BUS 264.

Business related courses choose from BUS, DOT, CST, TAE, MAT, MET.

**NOTE:** A number of choices exist in The Business - General Emphasis Program. By carefully selecting the proper Business courses, students can generate a concentration in a particular field, such as Sales, Retailing or Management. To identify these courses, students should discuss their interests with their academic advisor.

*Business students who have taken courses through AIB, LOMA, or other recognized national programs of study and examination should apply to the Academic Advisor for consideration of credit.*





## A.A.S.-EARLY CHILDHOOD

**SUGGESTED SEQUENCE For Part-Time Students:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses		Credits
PSY 110	General Psychology	3
PSY 211	Child Development	3
CDC 100	Introduction to the Education of Young Children	3
ENG 110	Written Expression I	3
CDC 120	Curriculum Development	3

Additional Courses for Certificate		Credits
SOC 110	Introduction to Sociology	3
CDC 245	Social Development of Young Children	3
Child Care Electives (see list below)		9
		30

Remaining Courses for Degree		Credits
ENG 220	Communicating About Values	3
Humanities Elective (see list below)		3
Math or Science Elective (see list below)		6-8
Child Care Electives (see list below)		3
CDC 170	Practicum I ("W" Emphasis Course)	3
CDC 290	Practicum II	6
Related Approved Electives (see list below)		6
		30-32

AAS Child Care Minimum Semester Credits	60-62
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### More Information:

Francis J. Short, Chairperson or Marilyn Schafer, Program Coordinator (Phone 771-5029 or 771-5087).

### CDC Electives:

Students may select 12 hours of courses designated for Child Care, such as CDC 115, CDC 140, CDC 150, CDC 160, CDC 210, CDC 220, CDC 230, CDC 250, LIT 263, THR 117, THR 201

### Related Electives:

Students may elect 6 hours from the Related Approved Electives from the Following: PSY 103, PSY, 212, PSY 214, PSY 217, PSY 220, PSY 227, SOC 230, SOC 210, SOC 234; or from other disciplines with permission.

### Elective Areas:

Suggested Humanities - select from English, Languages, Fine Arts, Philosophy, Speech

Math or Science - select from Math, Biology, Chemistry, Physics, Physical Science (MAT 113, MAT 114, BIO 131, CHM 120 recommended).

Students must fulfill General Education requirements. See page 26.

## A.A.S.-CRIMINAL JUSTICE

This program is designed for individuals considering employment upon graduation or for those already employed in the Criminal Justice field. Students intending to transfer for advanced degrees are advised to pursue the Criminal Justice option in Liberal Arts (see page 57).

**SUGGESTED SEQUENCE For Part-Time Students:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses		Credits
ENG 110	Written Expression I	3
SOC 110	Introduction to Sociology	3
CRJ 105	Corrections	3
CRJ 101	Intro. to Criminal Justice	3

Additional Courses for Certificate		Credits
PSY 110	General Psychology	3
SPK 102	Effective Speaking	3
POS 201	Introduction to American Government or	
POS 204	American State & Local Government	3
Sociology Elective		3
Psychology Elective		3
CRJ 125	Penal Law	3
CRJ 212	Criminal Procedure/Constitutional Law ("W" Emphasis Course)	3
		33

### Remaining Courses for Degree

ENG 220	Communicating About Values	3
Lab Science or Math or Combination		6
SAC 295	Seminar in Human Potential or	
SAC 101	Individual in a Changing Environment or	
PSY 100	Psychology of Personal Adjustment	3
Philosophy Elective (PHI 201 or 206 recommended)		3
Free Electives (any field: Social Science recommended)		3
CRJ 115	Juvenile Justice	3
CRJ 215	Police Administration or	
CRJ 230	Criminal Investigation	3
Criminal Justice Elective		6
AAS Criminal Justice Minimum Semester Credits		60

Credit for academy training will be considered after admission to candidacy on the basis of about one credit per 40 or one credit per 50 contact hours, with option to receive transfer credit for other Criminal Justice related programs up to 12 credits total. The requirement will be that the individual must provide documentation of attendance and relevancy of work.

### More Information:

Coordinator, Richard Fitzpatrick, Phone 771-5029  
Francis J. Short, Chairperson, Phone 771-5087



# ASSOCIATE IN APPLIED SCIENCE - INDUSTRIAL TECHNOLOGY

## CHEMICAL EMPHASIS

**SUGGESTED SEQUENCE:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
MAT 139 Algebra	4
CHM 145 Chemistry	4
English Electives (see list below)	3

### Additional Courses for Certificate

CHM 146 Chemistry	4
CHM 291 Organic Chemistry I	3
CHM 292 Organic Chemistry II	3
PHY 141 Physics	4
MAT 140 Trigonometry	4
CST 122 Computer Programming - FORTRAN	3
	<hr/> 32

### Remaining Courses for Degree

PHY 142 Physics	4
CHM 293 Analytical-Instrumental Chemistry I	3
CHM 294 Analytical-Instrumental Chemistry II	3
English Electives (see list below)	3
Social Science Electives (see list below)	6
Approved Technical Science Electives (see list below)	<hr/> 13

AAS Industrial Technology (Chemical Emphasis)	
Minimum Semester Credits	64

The following may be taken as approved technical/science courses to meet degree requirements: MAT 162, MAT 181, MAT 182, MAT 264, EET 111, EET 112, EET 125, EET 126, MET 261, CST 113, CST 126, CST 150, CST 170, CST 202, CST 205, CST 211, CST 220, CST 222, CST 225, BIO 111, BIO 112.

**Suggested English Courses:**  
ENG 110, ENG 120, ENG 150, SPK 102

**Suggested Social Science Courses:**  
ECO 104, ECO 110, ECO 111, PSY 100, PSY 110, SOC 110, SOS 120, SOS 130.

## CIVIL EMPHASIS

### In Industrial Technology (Associate in Applied Science Degree)

**SUGGESTED SEQUENCE:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
MAT 139 Algebra	4
MAT 140 Trigonometry	4
ENG 110 Written Expression I	3
PHY 141 Physics I	4

### Additional Courses for Certificate

MET 132 Applied Mechanics	4
MET 113 Engineering Drawing I	2
CIV 159 Architectural Drafting	3
CAD CAD Elective	3
CST 122 Computer Programming - FORTRAN	3
CAD 150 Basic CADAM	2
	<hr/> 32

### Remaining Courses for Degree

PHY 142 Physics II	4
MET 235 Strength of Materials	3
ENG 150 Technical Writing	3
Social Science Electives (see list below)	6
CAD CAD Elective	3
Approved Technical Electives * (see list below)	<hr/> 13

AAS Industrial Technology (Civil Emphasis)	
Minimum Semester Credits	64

\*The following may be taken as approved technical elective courses to meet the degree requirements: CIV 111, MAT 162 or MAT 181, CIV 160, CIV 216, CIV 217, CIV 224, CIV 226, CIV 228 or CIV 231, CIV 238, CIV 240, CIV 268.

**Suggested Social Science Courses:** ECO 110, ECO 111, SOC 110, PSY 110, ECO 104, PSY 100.

\*Students should note that specialty courses like Surveying, Materials Testing and Steel and Reinforced Concrete Design are generally only offered during the day. Students should carefully review the effect of this scheduling on their academic plans.

## ELECTRICAL EMPHASIS

**SUGGESTED SEQUENCE:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed.

Introductory Courses	Credits
MAT 139 Algebra	4
MAT 140 Trigonometry	4
EET 125 Circuits I	3
ENG 110 Written Expression I	3

### Additional Courses for Certificate

EET 126 Circuits II	3
EET 255 Electronics I	4
MET 113 Engineering Drawing	2
CST 122 Computer Programming - FORTRAN (Technical)	3
Social Science Elective (see list below)	3
Approved Technical Electives (see list below)	<hr/> 3
	32

### Remaining Courses for Degree

EET 235 Electrical and Electronics Drawing	2
EET 245 Energy Conversions and Control Systems	4
EET 256 Electronics II	4
EET 257 Electronics III	4
EET 267 Digital Electronics & Microprocessors I	4
PHY 141 & PHY 142 Physics	8
ENG 150 Technical Writing	3
Social Science Elective (see list below)	<hr/> 3

AAS Industrial Technology (Electrical Emphasis)	
Minimum Semester Credits	64

**Approved Technical Electives:**  
EET 111, EET 112, EET 268, MAT 124; MAT 181, MAT 182, MAT 264, MET 243, MET 132, MET 244, MET 246, MET 253, MET 255, MET 261, MET 280, MET 285, MET 286, CIV 228, CIV 268, CIV 155, CHM 145, CHM 146, CST 115, CST 126, CST 130, CST 150, CST 200, CST 201, CST 202, CST 222, CAD 150, CAD 151, CAD 210, CAD 221, CAD 230, CAD 250.

**Suggested Social Science Courses:**  
ECO 104, ECO 110, ECO 111, PSY 100, PSY 110, SOC 110, SOS 120, SOS 130.

Courses in the fast changing engineering technologies such as Electronics, Computers, Energy Conversions and Control Systems and Machine & Controls, can not be used for degree requirements if they were taken more than 5 years prior to graduation date. One exception to this rule would be the student who has been in the degree program for a number of years and has taken at least one required course every fall and spring semester.



## MECHANICAL EMPHASIS

**SUGGESTED SEQUENCE:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed.

Introductory Courses	Credits
*MAT 139 Algebra	4
*MAT 140 Trigonometry	4
MET 113 Engineering Drawing I	2
English Elective (see list below)	3

Additional Courses for Certificate	
MET 121 Manufacturing Processes I	3
MET 122 Manufacturing Processes II	2
PHY 141 Physics	4
CST 122 Computer Programming - FORTRAN	3
MET 132 Applied Mechanics	4
Approved Technical Electives (see list below)	3
	<hr/> 32

Remaining Courses for Degree	
MET 235 Strength of Materials	3
MET 253 Engineering Materials & Industrial Processes	3
MET 263 Engineering Statistics & Quality Control	2
PHY 142 Physics	4
English Elective (see list below)	3
Social Science Electives (see list below)	6
Approved Technical Electives (see list below)	<hr/> 11

AAS Industrial Technology (Mechanical Emphasis)	
Minimum Semester Credits	64

The following may be taken as approved technical elective courses to meet degree requirements:

CAD 200, CAD 201, CAM 210, CAD 211, CAD 212, CAD 213, CAD 214, CAD 220, CAD 230, MET 116, MET 125, MET 223, MET 238, MET 243, MET 244, MET 280, MET 285, MET 286, MET 287, EET 111, EET 112, EET 125, EET 126, EET 255, EET 256, EET 257, CIV 159, CIV 160, CHM 145, CHM 146, MAT 181, MAT 182.

**Suggested English Course:**  
ENG 110, ENG 120, ENG 150, SPK 102.

**Suggested Social Science Course:**  
ECO 104, ECO 110, ECO 111, PSY 100, PSY 110, SOC 110, SOC 130.

\*Must have a minimum of 4 hours of Mathematics as a requirement for the degree if background makes it unnecessary to take MAT 139 Algebra and MAT 140 Trigonometry.

## PRODUCTION MANAGEMENT EMPHASIS

**SUGGESTED SEQUENCE:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
*MAT 139 Algebra	4
*MAT 140 Trigonometry	4
MET 113 Engineering Drawing I	2
English Elective (see list below)	3

Additional Courses for Certificate	
MET 121 Manufacturing Processes I	3
MET 122 Manufacturing Processes II	2
PHY 141 Physics	4
BUS 255 Industrial Labor Relations	2
MET 280 Management Decisions	2
MET 285 Time, Motion & Wage Study	2
Approved Electives (see list below)	4
	<hr/> 32

Remaining Courses for Degree	Credits
CST 122 Computer Programming -FORTRAN (Technical)	3
BUS 252 Supervision of Personnel	2
MET 263 Engineering Statistics & Quality Control	2
MET 286 Production Control	2
MET 287 Plant Layout & Materials Handling	2
PHY 142 Physics	4
English Elective (see list below)	3
Social Science Electives (see list below)	6
Approved Electives (see list below)	<hr/> 8

AAS Industrial Technology (Production Management Emphasis)	
Minimum Semester Credits	64

\*Must have a minimum of 4 hours of Mathematics as a requirement for the degree if background makes it unnecessary to take MAT 139 Algebra and MAT 140 Trigonometry.

The following may be taken as approved courses to meet degree requirements:

CST 110, MET 116, MET 125, MET 132, MET 223, MET 235, MET 238, MET 243, MET 244, MET 253, EET 111, EET 112, EET 125, EET 126, CIV 159, CIV 160, BUS 118, BUS 154, BUS 243, MAT 181, MAT 182, CAD 200, CAD 201, CAD 211, CAD 212, CAD 213, CAD 214, CAD 220.

**Suggested English Courses:**  
ENG 110, ENG 120, ENG 150, SPK 102.

**Suggested Social Science Courses:**  
ECO 104, ECO 110, ECO 111, ECO 120, PSY 100, PSY 110, SOC 110, SOS 130.



# ASSOCIATE IN APPLIED SCIENCE

## FIRE PROTECTION TECH.

The Fire Protection Technology Program is designed to provide fire fighters and related fire service personnel with specialized training. The curriculum has been developed by a local advisory committee to meet the needs of the area, and specialized courses as well as general education courses constitute the degree program. Specialized courses include Fire Fighter Tactics and Strategy, Arson Investigation, Hydraulics, Hazardous Materials, Fire Prevention, and Building Construction.

This program is open to both paid and volunteer fire fighters of the community, as well as those persons in related firematic areas.

### More Information

Appointment Pending, Program Coordinator  
Francis J. Short, Chairman  
(Phone 771-5087)

**SUGGESTED SEQUENCE:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

## PARALEGAL ASSISTANT

**SUGGESTED SEQUENCE** For Part-Time Students: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed.

### More Information

Matthew Vitanza, Program Coordinator  
Francis J. Short, Chairperson  
(Phone 771-5087)

Introductory Courses	Credits
ENG 110 Written Expression I	3
PLA 110 Survey of Paralegalism	3
PSY 110 General Psychology or	
SOC 110 Introduction to Sociology	3
Additional Courses for Certificate	
Liberal Arts Elective	3
PLA 215 Estates, Probates & Trusts	3
PLA 120 Advanced Paralegalism	3
PLA 207 Legal Writing and Research ("W" emphasis course)	3
PLA 200 Real Property Law	3
PLA (Paralegal) Elective	6
	30

Remaining Courses for Degree	
BUS 100 Accounting I	4
PLA (Paralegal) Elective	6
Math/Science Electives	6
SOC (Social Science) Elective	3
ENG 220 Communicating About Values	3
Business Elective	3
Free Electives	6
	31

AAS Paralegal Assistant  
Minimum Semester Credits 61

**Suggested Math/Science Courses:**  
MAT 124, MAT 145, BIO 131, CHM 120,  
PHS 111, MAT 113, MAT 114, BIO 120.

**Note:** Students must fulfill General Education requirements. See page 26.

Introductory Courses	Credits
ENG 110 Written Expression I	3
Fire Protection Courses	9

### Additional Courses for Certificate

Mathematics or Science Elective (see list below)	3-4
Chemistry (see list below)	3
Social Sciences (see list below)	6
Fire Protection Courses	6
	30-31

### Remaining Courses for Degree

Fire Protection Courses	6
Health (see list below)	3
Management (see list below)	6
Electives (see list below)	12
ENG 220 Communicating About Values	3

AAS Fire Protection Technology  
Minimum Semester Credits 60-61

**NOTE:** Students must fulfill General Education Requirements. See page 26.

### Recommended Electives

Chemistry: Suggest CHM 120

Mathematics: Suggest MAT 139 (4 Credits)

Social Sciences: Choose from History, Anthropology, Sociology, Psychology, Political Science, Economics. One course must be from the following: SOC 110/111, HIS 130/131, POS 201, SOS 111/120, ECO 110/111.

Health: Advanced First Aid, Emergency Medical Technician. Programs or equivalent may be submitted for approval. Students may elect BIO 131 Human Biology.

Fire Protection Courses: Select from FRS 101\*, FRS 103, FRS 105, FRS 107, FRS 108, FRS 200, FRS 201, FRS 205\*, FRS 250, FRS 299.

\*"W" emphasis course

Management: Suggest BUS 245, BUS 246, BUS 258, BUS 262, BUS 150.

Electives: Courses with FRS, MAT designators, CHM 121, CHM 290, or other courses with permission.

**Suggested Sequence For Full-Time Paralegal Students** (recommendations on electives available from department as part of advisement process).

FIRST YEAR Fall Semester	Hours per Week		Credits per
	Class	Lab	Semester
PSY 110 General Psychology .....	3	0	3
ENG 110 Written Expression I .....	3	0	3
PLA 110 Survey of Paralegalism .....	3	0	3
BUS 100 Accounting I .....	4	0	4
BUS 118 Business Law I .....	3	0	3
	16	0	16

### Spring Semester

ENG, LIT Free Elective .....	3	0	3
BUS Elective 249, 245 rec'd .....	3	0	3
PLA 120 Advanced Paralegalism .....	3	0	3
Arts/Science Elective .....	3	0	3
PLA 200 Real Property Law .....	3	0	3
	15	0	15

### SECOND YEAR

Fall Semester			
Math/Science Elective .....	3-4	3	3-4
PLA 215 Estates, Probates .....	3	0	3
*Social Science Elective .....	3	0	3
PLA Elective 225, 220 rec'd .....	3	0	3
Free Elective .....	3	0	3
	15-16	3	15-16

### Spring Semester

Math/Science Elective .....	3-4	3	3-4
PLA 207 Writing/Research .....	3	0	3
Arts/Science Elective .....	3	0	3
PLA Elective .....	3	0	3
ENG 220 Communicating About Values .....	3	0	3
	15-16	3	15-16

\*Choose one from the following: SOC 110/111, HIS 130/131, POS 201, SOS 111/120, ECO 110/111.



# LIBERAL ARTS

## ASSOCIATE IN ARTS

**SUGGESTED SEQUENCE:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed.

Introductory Courses	Credits
ENG as advised (090, 110, 110S)	3
Liberal Arts Courses	6
Additional Courses for Certificate	
HIS 110 or 115	3
Approved Humanities	3
Approved Social Sciences	6
Approved Liberal Arts Courses	11
	32
Remaining Courses for Degree	
Remainder of degree requirements (see below)	30
AA Liberal Arts & Sciences	
Minimum Semester Credits	62

### Minimum requirements for AA degree:

**English**—a minimum of 12 credits, of which 6 shall be in composition and 6 in literature.

**History**—a minimum of 6 credits in approved courses including HIS 100 The Rise of the West or HIS 115 Modern Global History.

**Humanities**—a minimum of 6 credits (6 in Philosophy or 6 in a foreign language).

**Mathematics**—students who have completed fewer than 3 units of secondary school mathematics (through 11th year math) are required to take 2 semesters of college level mathematics. • Students who have completed 3 units of secondary school mathematics (through 11th year math) are required to take one semester of college level mathematics. • Students who have completed more than 3 units of secondary school mathematics (including 11th year math) are not required to take additional math. They may, however, elect an appropriate math course or an elective in another field.

**Natural and Physical Sciences**—a minimum of 8 credits

**Social Sciences**—a minimum of 6 credits\*

**Electives**—minimum of 16 credits (A maximum of 15 credits may be taken outside the offerings in Liberal Arts & Sciences with the approval of the Dean of Liberal Arts).

The Associate in Arts program is structured to allow the greatest flexibility in course selection and sequence. It is recommended that students begin with the requirement in Written Expression, which is 3 hours of ENG 110.

\*Choose at least one from the following: ECO 110/111, HIS 130/131, POS 201/204, SOS 111/120, SOC 110/111.

### More Information:

George Higginbottom, Liberal and General Studies Dean (Phone 771-5031)

# ASSOCIATE IN SCIENCE

## SCIENCE OPTION

**SUGGESTED SEQUENCE:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
Mathematics as advised	3-4
English as advised (090, 110, 110S)	3
Additional Courses for Certificate	
*2 Science Elective Sequences	16
HIS 100 or 115	3
†Mathematics	6-8
	32-34
Remaining Courses for Degree	
ENG 220 Communicating About Values	3
*2 Science Elective Sequences	16
LIT 200 and Elective	6
History Elective	3
#Social Science Electives	6
	34-36

AS degree in Liberal Arts  
Semester Credits 66-68

\* "Sequences" in biology, chemistry, physics or physical science must be taken for each of these 2 science requirements. (Recommended: BIO 111, 112; BIO 151, 152; CHM 145, 146; PHY 161, 162; CHM 245, 246.) At least 8 hours must be at the 200 level.

#Courses to be chosen from ANT, ECO, POS, PSY, SOC, SOS designators. At least one must be from following: SOC 110/111, HIS 130/131, SOS 111/120, POS 201, ECO 110/111.

†If the Calculus and Analytic Geometry requirement was met the first year, electives must be Philosophy (6) or Foreign Language (6-8). Higher level math can only be elected by approval of Dean if transfer needs require it.

Students who have not passed Advanced Algebra or its equivalent in high school (usually 3 ½ - 4) high school units) should take Algebra and Trigonometry or Pre-Calculus the first year followed by a year of Calculus with Analytic Geometry in the second year. Only if students have the equivalent of Calculus with Analytic Geometry upon entry can they take the non-math elective.

### More Information:

George Higginbottom, Liberal and General Studies Dean (Phone 771-5031)

# MENTAL HEALTH AND RETARDATION EMPHASIS

**SUGGESTED SEQUENCE:** Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
ENG 110 Written Expression I	3
PSY 110 General Psychology	3
MAT Mathematics (MAT 124 Statistics recommended)	3
HIS 100 Rise of the West or HIS 115 Modern Global History	3
Additional Courses for Certificate	
LAB Science Sequence (BIO 111 or 131 recommended)	4
Liberal Arts Elective	3
SOC 110 Introduction to Sociology	3
PHI Philosophy Elective	3
PSY 214 Abnormal Psychology	3
PSY 217 Counseling and Interviewing	3
	31

### Remaining Courses for Degree

LAB Science Sequence (BIO 112 or 132 recommended)	4
PSY 223 Intelligence and the Mentally Retarded	3
SOS 275 Community Internship	3
PSY 227 Behavior Modification	3
ENG 220 Communicating About Values	3
Approved Electives in Mental Health & Retardation Emphasis (see page 56)	9
SOC 250 Introduction to Social Work	3
	31

AS in Liberal Arts  
(Mental Health & Retardation Emphasis) Minimum Semester Credits 62

### More Information:

Charles Croll, Program Coordinator (Phone 771-5021)

Students must fulfill General Education requirements. See page 26.

# TOOL AND DIE MAKING

## ASSOCIATE IN OCCUPATIONAL STUDIES (AOS)

The Tool and Die Making Program is currently under revision. A new course sequence will be issued as soon as it is approved.

### More Information:

William Kelly, Chairman  
Mechanical Engineering  
Technology Department  
Phone 771-5023

# CERTIFICATE PROGRAMS

## DIETARY MANAGER

### Leads to Certificate

This program is designed for individuals already employed in the food service field, as there is a requirement for supervised work experience by a Registered Dietician. All persons entering the program are responsible for finding a preceptor, and registrations are on a pre-application basis.

	Credits
DIA 101 Nutrition	3
DIA 102 Institution Food Preparation	3
DIA 201 Food Management Systems	3
DIA 202 Personnel Management	3

Apply for Certificate - Dietary Manager 12

#### More Information:

Judy Komarinetz, Coordinator,  
(Phone 771-5343)  
Joseph K. Gay (Phone 771-5161)

## LIBERAL ARTS & SCIENCES

### General Studies Emphasis Leads to Certificate

	Credits
English	3
Social Sciences & Humanities	15
Math/Science	12
Liberal Arts Certificate (General Studies Emphasis)	30

The awarding of the certificate does not necessarily mean that the student is a candidate for the Associate in Arts degree. Courses must have approval of the Liberal and General Studies Division to insure that work is appropriate to the Associate in Arts Degree.

#### More Information:

George Higginbottom, Liberal and General Studies Dean, Phone 771-5031

## INTERIOR DESIGN

### Leads to Certificate

This is a credit program for individuals interested in a career in interior design or those currently employed in home furnishings or design related fields who would like to obtain greater knowledge and expertise. Those whose interests in design are not job-related are also encouraged to enroll.

Full-time Liberal Arts students are referred to the Design Arts Model for the A.A. degree on page ##.

	Credits
ART 101 History of Western Art	3
ART 105 Introduction to Design	3
INT 101 History of Architecture- Exterior and Interior	3
*INT 110 Interior Design I	4
*INT 111 Interior Design II	4
INT 122 Professional Practice	3
ART 150 Graphic Rendering	3
INT 105 Basic Drawing	3
BUS 262 Small Business Management	3
Total	31

\*These courses have prerequisites

#### More Information:

Robert Keller, Program Coordinator,  
(Phone 771-5075)

## OFFICE TECHNOLOGIES

### Leads to Certificate

#### See page 43

This program can be taken as a full-time one-year program or taken as a part-time program either daytime or evening.





# CENTER FOR COMMUNITY EDUCATION

*Broome Community College has an extensive non-credit community education program of courses, seminars and special events. The program receives about 8,000 registrations each year in its open enrollment programs, serving the community's career development, cultural, and recreational needs.*

## Career Development

This category consists of courses and seminars designed to update professional skills or introduce participants to new career areas. Included are Computer Center offerings, the Management Institute, the BCC Police Academy, and other programs.

## Corporate Service

The Corporate Service Program at Broome Community College is designed to demonstrate the College's commitment to local economic development. The Program's principle mission is to produce quality education and training packages for area corporations.

Course content, materials and presentations are tailored to fit the unique needs of each client. Classes may be scheduled during the more traditional day or evening frame or around the specific shift schedules of the company. Most employee training programs can take place on the employer's premises, thus minimizing lost employee work time.

Course topics include communication skills, management seminars, safety training, technical programs and personal planning programs.

For additional information on contract education programs, call the Corporate Service Program in the Center for Community Education (771-5056).

## Leisure Time Mini Courses

These are short term courses designed to explore a variety of personal interests. Programs include a hobby and craft center, personal development courses, financial courses, defensive driving, languages, and a variety of special events.

## College for Kids

One of the most popular credit-free areas is a program specially designed for kids - from elementary schoolers to high school students. Regular offerings include:

- Hobbies and crafts for kids
- Study skills
- SAT preparation

Generally these short term offerings are scheduled on Saturday mornings throughout the year.

## Conferences and Seminars

The College conducts workshops and seminars in a variety of topics throughout the year. These are intended to update job skills and explore new fields of interest. Some of the seminars have been for law-enforcement personnel, women seeking jobs and educational information, community agencies, and business and industry employees.

## Tour Programs

The College regularly sponsors a variety of charter tours to places such as N.Y. City, Boston, Canada, etc.

## Registration

Community Education Programs are offered continuously throughout the year. Free catalogs list the courses, with their descriptions, times, dates, fees. A form is included in each term's catalog for easy mail-in registration. Registrations are accepted on a first-come, first-served basis.

## Course Development

Programs are a joint effort between Broome Community College faculty, community people, area agencies, organizations and business firms. Groups interested in teaching or co-sponsoring a course are encouraged to discuss the possibilities with the College's Center for Community Education. Many programs offered each year come about because someone suggested them, or a group was concerned about a real need in the community. A teaching interest and course proposal form is available for individuals wishing to teach a particular subject. These forms will be mailed upon request. Call 771-5056.



## Certificate of Participation

Certificates of Participation are given to those participants completing a non-credit course. Many employers fund participation in these courses; information is available in the company's personnel department.





# PART 4



# COURSE DESCRIPTIONS

The offering of any course is subject to sufficient enrollment. Courses numbered from 100 to 199 are generally first-year courses, and those numbered in the 200's are usually taken in the second year. The number of

credits listed for each course is for a semester, while the number of class hours and laboratory hours is for a week, unless otherwise states. Courses are listed in alphabetical order by department.

## ANTHROPOLOGY

### ANT 110 Physical Anthropology and Archaeology

3 Credits

Introduction to human evolution, variation and prehistory. The Darwinian Revolution, mechanisms of evolution, the fossil record, domestication of plants and animals, the rise of civilization. Prehistory topics may include Americas, Africa, Middle East, Asia. (Not offered in 1988-89.)

3 Class Hours

### ANT 111 Cultural Anthropology

3 Credits

Introduction to the study of culture as the behavioral adaptation unique to human societies. Cultural characteristics shared by all humans and major variations found among specific groups. Explanations for rules of social interaction in common activities, the social functions of institutions such as marriage and kinship, the ecological basis of many institutions, language as a culturally defined system of communication, modernization in our own and third world societies.

3 Class Hours

### ANT 299 Independent Study

1-3 Credits

An individual student project in anthropology which is beyond the scope of requirements of the courses offered by the department, conducted under the direction of a faculty member and approved by the department chairperson.

Prerequisite: 3 semester hours in Anthropology

## ART

### ART 101 History of Western Art

3 Credits

Basic art principles and concepts together with their historical development as shown in representative works of painting, sculpture and architecture. Gallery visits.

3 Class Hours

### ART 105 Introduction to Two Dimensional Design

3 Credits

Introduction to design involves the student with investigation of visual perception and organization. The student is expected to become more fully equipped to understand and work with design concepts through heightened physical and sensory awareness, experimentation with a variety of media and intellectual comprehension of text, lecture and visual examples. Line space, illusion, texture, color and form are explored.

2 Class Hours, 2 Studio Hours

### ART 106 Introduction to Three-Dimensional Design

3 Credits

Developing sensitivity and awareness of our spatial environment is the objective of this course. Aesthetic and functional elements of three dimensional design are explored. Through reading, projects, lectures and field trips, techniques are explored to assist in heightening awareness. This enables the student to understand the functional and aesthetic examples of the three dimensional environment. Emphasis is placed on studio projects.

2 Class Hours, 2 Studio Hours

### ART 115 Drawing

3 Credits

Intensive drawing instruction in charcoal, pencil, pen and ink, pastel and mixed media, life drawing, still-life composition.

6 Studio Hours

### ART 116 Painting I

3 Credits

Beginning painting instruction and practice of oil painting, still-lives, landscapes.

6 Studio Hours

Prerequisite: ART 115 Drawing or Instructor's permission



### ART 130 Pottery

3 Credits

Study of the basic processes of the design and creation of ceramics, both functional and sculptural. Fundamentals of hand-building, potter's wheel, glazing and firing.

6 Studio Hours

### ART 140 Printmaking

3 Credits

Three equal parts to course — linecut, woodcut, monotype. Explanation, uses, technical demands, potential and limitation of each process. Students to develop images for blocks or plates.

6 Studio Hours

**ART 150 Graphic Rendering****3 Credits**

Graphic techniques for visual presentation of architectural, industrial and aesthetic forms. Studio projects stress creation of the representational image using perspective, color, texture and light. Applicable to advertising and illustration of ideas and products.

**2 Lecture Hours, 2 Lab Hours****Prerequisite:** ART 105 Introduction to Two Dimensional Design**ART 215 Painting II****3 Credits**

Continuation of painting instruction and practice done in ART 116 Painting I.

**6 Studio Hours****Prerequisite:** ART 116 Painting I or instructor's permission**ART 216 Painting III****3 Credits**

Painting from costumed models; advanced composition devices.

**6 Studio Hours****Prerequisite:** ART 116 Painting II or instructor's permission**ART 217 Advanced Drawing****3 Credits**

Advanced course presenting new media techniques and concepts; in-depth studies of projects encountered in ART 115.

**3 Studio Hours****Prerequisite:** ART 115 or permission of the instructor.**Independent Study: Art****1-3 Credits****ART 296 Printmaking****ART 297 Sculpture****ART 298 Studio Art****ART 299 Art History**

An individual student project concerned with advanced work in a specific area of art. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

**Prerequisite:** 3 semester hours of college level work in Art.

## **BANKING**

**BNK 140 Statement Analysis****3 Credits**

Basic concepts and skills of statement analysis. Examination of ratio analysis, trend analysis, fund and cash flow analysis. Pro forma statements, peak debt position, cash forecasting and working capital analysis are also covered.

**3 Class Hours****BNK 150 Customer Service for Bank Personnel****1 Credit**

For customer contact personnel, this practically based course provides an opportunity to improve communication skills as they relate to banking needs. Included are elements of professionalism, handling difficult situations, and interpersonal communication skills.

**1 Class Hour****BNK 168 Principles of Banking****3 Credits**

A core course that examines all aspects of banking. A comprehensive introduction to today's diversified bank services. Bank accounting, pricing, profitability, personnel and security functions.

**3 Class Hours****BNK 171 Bank Cards****3 Credits**

A thorough overview and update of the bank card industry. History and development of the card, operational aspects, legal and regulatory issues, and implications of the future of the card are discussed in depth.

**3 Class Hours****BNK 172 Real Estate Finance For Bankers****3 Credits**

An introductory course highlighting sources of mortgage credit. Analysis of mortgage credit and real estate investment. Appraisal of residential and income producing property, construction loan administration, and federal assistance in the mortgage market.

**3 Class Hours****BNK 173 Marketing for Bankers****3 Credits**

A thorough examination of basic marketing principles and practices and their application to the banking industry. Designed for entry level through mid-management level employees.

**3 Class Hours****BNK 174 Money & Banking****3 Credits**

Basic economic principles as they relate to banking. This course, designed for bank personnel in customer contact positions, management trainees, and mid-management entry personnel, provides the foundation for further banking study.

**3 Class Hours****BNK 175 Consumer Credit Analysis****3 Credits**

Designed for those who understand the basics of consumer lending, this course provides specific training on the many aspects of making a consumer loan. Legal and regulatory issues, credit application and investigation, loan interviewing, documentation, credit decision considerations.

**3 Class Hours****BNK 176 Law and Banking Principles****3 Credits**

Sources and applications of banking law. Torts and crimes, contracts, real and personal property, bankruptcy, legal implications of consumer lending.

**3 Class Hours****BNK 178 Inside Commercial Banks****3 Credits**

Designed for all levels of bank personnel, this course offers an overview of major issues facing banking today. Examined are the current competitive, regulatory, technological, and market related developments affecting commercial banking.

**3 Class Hours****BNK 179 Management Fundamentals/Banking****3 Credits**

The art and science of management centered around the basic management function of planning, organizing, leading, and controlling. A student oriented format utilizing case studies and discussion.

**3 Class Hours****BNK 181 Investment Basics and Beyond****3 Credits**

Introductory course for trust department and retail bank personnel. The securities market, investment alternatives, and trust department investment operations are examined in detail. Also covered are investment techniques, portfolio management, and practical applications.

**3 Class Hours****BNK 182 Consumer Lending****3 Credits**

Designed for entry level and consumer credit personnel. An overview of consumer credit. Evaluating credit risks, consumer credit policy, servicing and collecting loans, consumer compliance, documentation, portfolio management, and marketing.

**3 Class Hours****BNK 185 Corporate Banking****3 Credits**

A pragmatic approach to understanding the lending environment within a bank. The course provides the less experienced commercial lender with a firm grasp of the sequential nature of the lending process. Emphasis is on a practical, technical approach.

**3 Class Hours****BNK 186 Preparing For Supervision****1 Credit**

For the bank employee considering the move to a supervisory role, knowledge and practice in areas such as leadership, motivation, productivity, and communication.

**1 Class Hour****BNK 187 Bank Letters and Reports****3 Credits**

Methods and skills of business communication as it relates to the bank environment. Examination of the form and format of a variety of bank letters and reports. Practical experience in effective business writing and discussion of common errors.

**3 Class Hours****BNK 188 Knowing The Market****1 Credit**

For new and prospective retail managers, a look at changing bank culture in an era of high technology. Identifying bank and non-bank competition, market segmentation, and target market.

**1 Class Hour****BNK 190 Problem Loans****3 Credits**

Problem loan prevention is stressed by examining common mistakes which cause problem loans. Effectively dealing with problem loans and minimizing losses examined through the use of case studies.

**3 Class Hours****BNK 191 Selling Skills for Bankers****1 Credit**

An examination of the skills necessary for customer contact personnel to sell bank services and meet customer needs. Development of specific selling techniques and positive attitude.

**1 Class Hour**



### **BNK 192 Bank Management 3 Credits**

For all levels of bank management this course presents a discussion of bank financial statements, an overview of asset liability management and a thorough discussion of deposit functions, lending short-term funds management and capital management.

**3 Class Hours**

### **BNK 196 Quality Customer Service 1 Credit**

For customer contact personnel. Communications, establishing contact, exploring customer needs, defining and resolving problems, and closing the encounter.

**1 Class Hour**

### **BNK 197 Professional Teller Training 1 Credit**

Basic skills and information needed to perform effectively as a teller. Cash and check handling, other transactions, balancing and settling.

**1 Class Hour**

### **BNK 198 Law and Banking: Applications 3 Credits**

An introduction to laws pertaining to secured transactions, letters of credit, and the bank collection process. Check losses, collateral, perfection, and default.

**3 Class Hours**

### **BNK 199 Analyzing Financial Statements 3 Credits**

For the bank lender/credit analyst. How financial data is generated and its limitations. Flow of business funds, selecting and interpreting financial ratios.

**3 Class Hours**

**Prerequisite:** BUS 100 Accounting I and BUS 101 Accounting II

## **BIOLOGY**

### **BIO 102 Preparatory Biology 0 Credits**

A preparatory course for students with no previous biology or laboratory science experience and for students needing additional background. Especially for prospective health science students.

**3 Lecture Hours, 3 Laboratory Hours**

### **BIO 111 General Biology I 4 Credits**

Principles of evolution and ecology as unifying themes in biology. Evolutionary processes and ecological adaptations illustrated by plant and animal diversity. Cellular life processes. Current environmental problems. The laboratory includes physically demanding field trips.

**3 Class Hours, 3 Laboratory Hours**

### **BIO 112 General Biology II 4 Credits**

Principles of evolution and ecology as unifying themes in biology. The human animal and its systems. Concepts of animal behavior. Classical genetics, current concepts of gene function and human genetics. Organismal growth and development. Current environmental problems. The laboratory includes physically demanding field trips.

**3 Class Hours, 3 Laboratory Hours**

### **BIO 120 Human Sexuality 3 Credits**

Explores information about sexual attitudes, relationships, sexual anatomy, contraception, sexually-transmitted disease, sexual physiology and dysfunction. Course aims to make students feel more comfortable thinking and talking about sex and to prepare them to make rational decisions about this important aspect of their lives.

**3 Class Hours**

### **BIO 131 Human Biology I 4 Credits**

Normal structure (gross and microscopic) and function of the skeletal, muscular and nervous systems. Emphasis on physiology in lectures and on anatomy in laboratory, stressing those aspects which have greatest relevance to the student's curriculum.

**3 Class Hours, 2 Laboratory Hours**

### **BIO 132 Human Biology II 4 Credits**

A continuation of BIO 131 Human Biology I covering the circulatory, respiratory, digestive, urinary, reproductive and endocrine systems. Emphasis on physiology in lectures and on anatomy in laboratory, stressing those aspects which have greatest relevance to the student's curriculum.

**3 Class Hours, 2 Laboratory Hours**

**Prerequisite:** BIO 131 Human Biology I or permission of instructor

### **BIO 140 Pathophysiology 3 Credits**

Symptoms, syndrome and etiology of pathogenic processes affecting the function and structure of the body.

**3 Class Hours**

**Prerequisite:** BIO 132 Human Biology II

### **BIO 150 Microbiology 4 Credits**

The biology of the common bacteria and related microorganisms. General microbiology including asepsis disinfection, sterilization, cultivation, pathogenicity, resistance, identification.

**3 Class Hours, 3 Laboratory Hours**

### **BIO 151 Aquatic Biology 4 Credits**

A study of how light, temperatures and water chemistry influence the plants and animals which live in ponds, lakes, rivers, and estuaries. Current and future ecology. Local, regional and national water related problems including pollution, waste water treatment, ground water contamination, acid rain, water recycling, salt water encroachment, wetland destruction.

**3 Class Hours, 2 Laboratory Hours**

### **BIO 160 Microbiology 3 Credits**

Position of microorganisms in the biological world, as well as their cultivation and identification. Asepsis, disinfection and sterilization. Disease transmission and the human elements in defense. For Dental Hygiene Students.

**2 Class, 3 Laboratory Hours**

### **BIO 170-199 Special Topics in Biology 1-2 Credits**

Special courses covering particular topics in the biological sciences beyond the scope of the normal course offerings.

### **BIO 171 Physiology of Exercise 1 Credit**

Designed to develop an understanding and appreciation for the role of consistent exercise in maintaining good health. The interrelationship of the muscular, cardiovascular, respiratory and digestive systems and the net effect of training on these systems.

**1 Class Hour**

### **BIO 200 Ecology: The Everglades 4 Credits**

A scientific yet sensitive look at one of the world's rare and endangered wilderness areas. Everglades ecology is studied through an extensive wilderness camping experience in Everglades National Park, involving a minimum of 90 hours of classroom and field instruction.

**3 Class Hours, 3 Laboratory Hours**

**Prerequisite:** College Biology

### **BIO 299 Independent Study 1-3 Credits**

An individual student project in a biological field which is beyond the scope of requirements of the courses offered by the department, conducted under the direction of faculty member and approved by the department chairperson. Independent Study is available to students who have a minimum of 3 semester hours of biology.

## **BUSINESS**

### **BUS 100 Accounting I 4 Credits**

Introduction to accounting principles and procedures necessary to complete the accounting cycle. How computers are used in accounting systems. Emphasis on journals, ledgers and financial statements. Accounting for merchandising transactions, valuation of inventories, and payroll.

**4 Class Hours**

### **BUS 101 Accounting II 4 Credits**

Expansion of the fundamental concepts and procedures of accounting. How computers can be applied to accounting systems. Emphasis on internal control, voucher systems and cash transactions, receivables and payables. The acquisition, depreciation and disposal of plant assets. Accounting methods and procedures relating to partnerships and the corporate form of business organizations. Manufacturing with emphasis on the special problems and additional accounting procedures to measure, control and report factory production costs.

**4 Class Hours**

**Prerequisite:** BUS 100 Accounting I

### **BUS 102 Payroll Accounting 2 Credits**

A comprehensive study of Federal and State laws and regulations affecting payrolls and payroll taxes. Practical report preparation and reporting requirements. Proper accounting practices to record payroll taxes.

**2 Class Hours**

### **BUS 110 Introduction to Business 3 Credits**

General background of modern business practices through the study of organization and management, production, human resources, accounting and finance, marketing, and the information needed for control and management decisions in business and society.

**3 Class Hours**

**BUS 112 Quantitative Business Methods****2 Credits**

Application of fundamental arithmetic computations to practical business problems. Emphasis on bank records, percentages, markups, cash and trade discounts, overhead distribution, simple interest and negotiable instruments, depreciation, inventory estimation and valuation.

**2 Class Hours****Prerequisite:** MAT 090 A Basic Mathematics Review**BUS 115 Business Statistics****3 Credits**

Concepts and mechanics of measures of central tendency, measures of dispersion, probability, sampling theory, estimation, hypothesis testing, and correlation as they relate to general problems in business and economics.

**3 Class Hours****\*BUS 117 Business and Society****3 Credits**

The role of business in the contemporary world. Increasingly difficult parameter for business despite the growing demands of accountability from government and of social responsibility from consumers. Business values and ethics, the role of business and government, environmental issues and energy policy, business and labor, business and consumer, the influence of multi-national corporations.

**3 Class Hours****BUS 118 Business Law I****3 Credits**

Law as an evolutionary and democratic process. Court Structure, administrative law, law-of-contracts, legal principles of agency, employment rights and an introduction to partnership.

**3 Class Hours****BUS 120 Business Law II****3 Credits**

The law governing the negotiation or transfer of commercial paper, law of sales, law of personal and real property, bailments, insurance, landlord-tenant relationships and an introduction to corporate law.

**3 Class Hours****Prerequisite:** BUS 118 Business Law I**BUS 129 Consumer Behavior****3 Credits**

Emphasizes the development of how people make purchase decisions in the market place. Consumer decision-making, learning, brand loyalty and market segmentation.

**3 Class Hours****BUS 130 Retail Management****3 Credits**

Techniques involved in planning, organization, control and operation of diverse retail establishments. Trading area analysis, warehousing, inventory control, customer relations. Case Studies, field trips.

**3 Class Hours****Prerequisite:** BUS 264 Retailing**BUS 131 Personal Finance****3 Credits**

Guidelines for financial planning regarding long term and short term installments buying i.e. homes, autos, etc., credit, insurances, taxes, savings, budgeting, and investments in real estate, stocks, bonds, IRA's, mutual funds, money market accounts, etc.

**3 Class Hours****\*BUS 135 Investments****3 Credits**

Evaluation of retirement/pension choices (IRA, SEP/IRA, Keogh, 403b, 401k, etc.) Selection, analysis and valuation of Limited Partnerships, Investment Companies (Closed-End vs. Open-End [Mutual Funds]), REIT's, Unit Investment Trusts, Fixed Income Securities, Government Securities, Common Stock, Options, Annuities and various insurance company hybrids. Non-Financial Assets, i.e. collectibles and Precious Metals as tools of investing.

**3 Class Hours****BUS 141 Marketing****3 Credits**

Introductory study of Marketing as an art and a science. Analysis of the basic principles and practices necessary to complete the marketing cycle effectively. Marketing of goods and services, from conception of the original product idea to delivery to the ultimate consumer. Marketing mix, marketing concept, environmental and societal constraints. Lecture, discussion, cases.

**3 Class Hours****\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS****BUS 152 Selling Fundamentals****3 Credits**

Principles of sales with practical application. Steps leading to a successful sale - prospecting, planning and delivering, dramatizing, handling objections, closing, building good will. Development and presentation of a complete procedure for a product or service. Closed-circuit television used to critique sales presentations.

**3 Class Hours****\*BUS 154 Purchasing****3 Credits**

Analytical approach to techniques employed in the industrial purchasing phase of marketing. Emphasis on the organization of the purchasing functions as an operational unit of the firm directed toward procurement activities.

**3 Class Hours****\*BUS 159 Management Institute I****1 Credit**

From the "hands on" point of view, an overview of what it takes to be a manager. Self evaluation, management functions, data management, legal regulations and unions, organizational overview, the people factor in management, and role playing. A team-teaching approach is used when possible.

**1 Class Hour****BUS 161 Real Estate Appraisal****3 Credits**

Designed to acquaint participants with the appraisal process of real property. Market approach, income approach and cost approach to value. Activities designed to build appraisal skills through case study, prepare appraisal reports and analyses.

**3 Class Hours****\*BUS 163 Real Estate for Salespersons****4 Credits**

Designed to meet New York State requirements for licensure as a real estate salesperson. Land use regulation, law of contracts, real estate instruments, real estate mathematics, real estate finance, closing and closing costs, brokerage and the law of agency, valuation and listing procedures, license law and ethics, human rights and fair housing.

**4 Class Hours****\*BUS 164 Real Estate for Brokers****4 Credits**

Designed to meet New York State requirements for licensure as a real estate broker. Land use regulation, operation of a real estate broker's office, general business law construction, subdivision and development, leases and agreements, liens and easements, taxes and assessments, investment property, property management, condominiums and cooperatives, appraisal, advertising, rent regulations.

**4 Class Hours****Prerequisite:** BUS 163 Real Estate for Salespersons**\*BUS 170 Insurance for Agents and Brokers****7 Credits**

Comprehensive survey of insurance. Fire, marine, automobile, owner liability, burglary, boiler, machinery, accident and health, fidelity and surety insurance. Insurance law and duties of the agent. Designed to meet requirements for the property and casualty license.

**7 Class Hours****\*BUS 176 Real Estate Finance****3 Credits**

Analysis of theories, practices and policies of real estate financing. Mortgage theory and lending practices in addition to alternative means of financing real property in the contemporary market. Case practices to build analytical skills in selecting different financing approaches.

**3 Class Hours****\*BUS 188 Income Tax I****2 Credits**

Fundamental Federal and New York State income tax rules and regulations for filing personal income tax forms. Gross income inclusions and exclusions, adjustments to income, tax credits, estimated taxes, itemized deductions, penalties and avoidance, amended tax returns.

**2 Class Hours****\*BUS 189 Income Tax II****2 Credits**

Preparation of supplementary tax forms, such as capital gains, rentals, income averaging, sole proprietorship, self employment taxes, investment credit, corporation tax returns, sub-chapter S corporations, gift and inheritance taxes.

**2 Class Hours****\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**



### **BUS 200 Intermediate Accounting I 4 Credits**

An intensive study of accounting theory and procedures. Emphasis on balance sheet accounts and their interrelationships with income statement accounts. The accounting process and correction of errors. Advanced treatment of cash, receivables, inventories.

**4 Class Hours**

**Prerequisite:** BUS 101 Accounting II

### **BUS 201 Intermediate Accounting II 4 Credits**

A more advanced treatment of accounting for fixed assets, intangible assets, current and long-term liabilities. Corporation accounting, funds flow reporting, financial statement analysis.

**4 Class Hours**

**Prerequisite:** BUS 200 Intermediate Accounting I

### **BUS 205 Cost Accounting I 4 Credits**

Nature and purpose of cost accounting. Job order and process costing. Accounting for factory overhead and analysis of variances. Accounting for labor and material.

**4 Class Hours**

**Prerequisite:** BUS 101 Accounting II

### **BUS 206 Cost Accounting II 4 Credits**

Further consideration of cost accounting principles, standard costs and variances. The construction of budgets, profit planning. Flexible budgets. Direct costing. Break even analysis. Accounting for by-products and joint products. Non-Manufacturing costs.

**4 Class Hours**

**Prerequisite:** BUS 205 Cost Accounting I

### **BUS 210 Managerial Accounting 4 Credits**

Accounting for managerial analysis and decision making, providing an analysis of accounting data useful in the planning and control functions of a firm. Study of cost concepts, break-even, differential accounting and responsibility accounting.

**4 Class Hours**

**Prerequisite:** BUS 101 Accounting II

### **BUS 224 Business Finance 3 Credits**

Financial principles and procedures of capital management. Analysis of the relationship of finance to micro and macro economic factors such as inflation business cycles, competition, regulation. Emphasis on corporate goals and objectives as a determining factor in the choice of financial management policy. Application of financial ratios, cash budgeting, forecasting, leverage, working capital policy, capital markets, stocks and bonds, valuation, and other basic areas of finance.

**3 Class Hours**

**Prerequisite:** BUS 100 Accounting I

### **BUS 229 Advertising 4 Credits**

Development, economies, functions of advertising. Cost application, media, testing and research methods. Development of advertisements, copy and layout, methods and problems of reproduction. Planning the advertising campaign with step by step developments. Lectures, discussions, demonstrations. BUS 141 Marketing is recommended as preparation for this course.

**4 Class Hours**

### **BUS 238 Marketing Research 3 Credits**

Methods of collecting and interpreting marketing information which affect marketing management. Specific applications to problem identification in market development, gauging market potential and implementation of research designs in the market place.

**3 Class Hours**

### **BUS 242 Marketing Seminar 3 Credits**

Senior capstone course which integrates various business subjects previously studied. Individual and team approach to analysis of comprehensive marketing and management cases and cooperative consideration of alternative decisions to problem solving.

**3 Class Hours**

**Prerequisite:** Non-Marketing majors must have adviser's permission

### **BUS 245 Management: A Behavioral Approach 3 Credits**

A comprehensive analysis of managerial theories and an integration of selected social sciences to investigate organizational problems related to managerial functions. Impact of the organizational environment and work groups upon human behavior.

**3 Class Hours**

### **BUS 246 Principles of Management 3 Credits**

Principles of managerial practices. Planning, organizing, directing, and controlling. Exposes students to proper methods and techniques to achieve employee and job satisfaction. Topics covered include scientific management, behavioral theory, and introduction to management science.

**3 Class Hours**

### **BUS 249 Personnel Management 3 Credits**

Principles of managerial practices. The four functions of management-planning, organizing, directing and controlling. Designed to expose the student to the proper methods and techniques to achieve employee and job satisfaction. Processing, developing, maintaining proper utilizing of the labor force. A review of the history and impact of organized labor incorporating economic, political and social pressures which influence employment. Effective interview poise, personal appearance, interviewing techniques, job opportunities and placement services. Correct preparation of a resume and the utilization of references.

**3 Class Hours**

### **\*BUS 252 Supervision of Personnel 2 Credits**

Concepts and psychology of personnel supervision. Emphasis on the application of management theory through use of case studies and classroom discussions.

**2 Class Hours**

### **\*BUS 254 Management Institute II 3 Credits**

From the "hands on" point of view, an in-depth study of what it takes to be a manager. Coaching, counseling, performance appraisal, interviewing, conflict resolution, risk, communications, data management, and dealing with stress. A team-teaching approach is used when possible.

**3 Class Hours**

### **\*BUS 255 Industrial Labor Relations 2 Credits**

Processes of bargaining and contract administration between industrial employers and unions representing employees, as a system of compromising opposing objectives and settling differences. Origins of unions, how they organize and gain recognition and how the labor agreement is negotiated and administered. Interaction among employees, stewards and supervisors. Labor laws. Institutions such as the National Labor Relations Board, mediation, services, arbitration boards and courts. (Completing this course will not give students credit for BUS 256 Labor Relations for Business and Industry).

**2 Class Hours**

### **\*BUS 258 Human Relations in Business 2 Credits**

Basic psychological principles applied to the problems of employee selection, training, evaluation, merit rating and advancement. Social interaction and human relations in industry. Motivation concepts and techniques, job satisfaction, morale, conference leadership and employee and management development.

**2 Class Hours**

### **BUS 259 Business Report Writing 3 Credits**

Training in logical analysis of business case problems, applied to the preparation of accurate written reports. Methods and skills in formal and informal business writing. Preparation of tables, charts, reference citations, and bibliographies. Improvement of basic business writing skill involved in interoffice memos, letters of adjustment, bids, quotations, public relations.

**3 Class Hours**

### **BUS 262 Small Business Management 3 Credits**

Designed for those interested in small business as owner-managers. Development of modern management techniques covering forms of organization, site acquisition and location, insurance, marketing, financing, pricing, breakeven, permits, licenses and franchising.

**3 Class Hours**

### **BUS 263 Small Business Seminar 4 Credits**

An intensive study of the various facets involved in organizing and operating a small business venture. Researching and evaluating business opportunities, establishing a buying/selling price for the business, small business taxation, analyzing and solving business problems, using information to manage marketing ideas. Heavy emphasis on development of the business plan and preparation of the loan proposal.

**4 Class Hours**

**Prerequisite:** BUS 101 Accounting II

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

**BUS 264 Retailing****3 Credits**

The history and overview of Retailing as well as the types of retail establishments. The four major areas of retailing: Merchandising, Finance, Operations, and Sales Promotion will be covered in depth. Types of retail outlets, including specialty, department stores, chain stores, supermarkets and discount stores, etc., will be considered.

**3 Class Hours****BUS 265 Retail Merchandising****3 Credits**

Principles of effective display: interior, window, point-of-purchase. Analysis of consumer buying habits, market evaluation, trend forecasting. Evaluation of variables of decor, lighting, impulse arrangements. Techniques of advertising and sales promotion. Case studies, field trips.

**3 Class Hours****Prerequisite:** BUS 264 Retailing**BUS 266 Advertising and Promotion for Small Business****4 Credits**

A comprehensive study emphasizing "hands on" approach to small business advertising and promotion. Functions of advertising and promotion, budgeting, media selection, cost consideration, development of copy and layout. Students will use various media, including television, in the preparation of an advertising campaign. Current information on publicly, public relation, merchandising. Store layout and design, sales promotion, dealer programs, and co-op advertising.

**4 Class Hours****BUS 270 Management Science****3 Credits**

An introduction to managerial problems relating to the planning and controlling functions, which provide guidelines to making rational decisions. A realistic approach utilizing cases and simulation is taken to expose the student to quantitative as well as subjective analysis to point out the constraints placed upon management.

**3 Class Hours****Prerequisite:** BUS 115 Business Statistics or MAT 124 Statistics**BUS 295 Accounting Seminar****4 Credits**

In-depth treatment of accounting for payroll taxes followed by actual completion of required state and federal tax forms. Thorough coverage of the Individual Tax Form 1040, schedules A, B, C, D, E, and G, small business taxes schedule SE and investment credit. Corporate Tax form 1120. Accounting concepts and current trends in accounting as reflected through financial statement analysis.

**4 Class Hours****BUS 297 Cooperative Work Experience****1-3 Credits**

Cooperative education is available to students in the marketing management, marketing sales and accounting curriculums. On-the-job experience may be obtained in such areas as retailing, banking, fast foods, government services and hotel management, as well as in CPA firms, public accounting offices, industrial, business and government offices where accounting is performed. Cooperative work students will meet with the coordinator one hour each week.

**Prerequisite:** Full-time student (minimum of 12 credit hours) maintaining an overall grade-point average of 2.5, with 3.00 in Business courses and no F's**BUS 299 Independent Study****1-4 Credits**

The student, under the guidance of a faculty member, undertakes an investigation, study and research in an advanced concept or problem concerning his/her major field of study. Only one independent study course is allowed per semester.

**Prerequisite:** Approval of Faculty Member and Department Chairperson

## **CHEMISTRY AND CHEMICAL ENGINEERING TECHNOLOGY**

**CHM 102 Preparatory Chemistry****4 Credits**

Introductory course in chemistry emphasizing problem-solving techniques related to chemical concepts. Atomic structure, stoichiometry, metric units, chemical bonding, chemical nomenclature, solution chemistry.

**4 Class Hours****Prerequisite:** MAT 090 Basic Math Review**CHM 120 Fundamental Chemistry****4 Credits**

First course for Fire Protection Technology, Health Sciences and Criminal Justice students. Composition of substances, atomic structure, periodicity, bonding, chemical equations, states of matter, aqueous solutions, chemical equilibria and introduction to organic chemistry.

**3 Class Hours, 3 Laboratory Hours****CHM 121 Forensic Sciences****4 Credits**

Introduction to forensic chemistry for Criminal Justice students. Examination of firearms, cartridges, explosives, drugs and other types of physical evidence. Emphasis on proper handling of substances found in crime scene investigations. Laboratory techniques include many modern instrumental methods, such as gas chromatography, infrared and mass spectroscopy.

**3 Class Hours, 3 Laboratory Hours****Prerequisite:** CHM 120 Fundamental Chemistry or permission of department**\*CHM 125 Chemistry****3 Credits**

Fundamental concepts of inorganic chemistry. Composition of substances, kinetic and molecular theories, atomic structure and bonding, solutions and colloids, ions in solution and introduction to organic chemistry. For Fire Protection Technology students.

**2 Class Hours, 3 Laboratory Hours****CHM 133 Survey of Organic Chemistry****3 Credits**

Fundamental treatment of organic chemistry, Nomenclature, properties of selected functional groups, mechanisms, stereochemistry and synthetic methods. Special emphasis on biomolecules such as lipids, carbohydrates, nucleic acids, vitamins and medicinally active compounds.

**3 Class Hours****Prerequisite:** CHM 145 Chemistry I and CHM 145 Chemistry Laboratory I**Corequisite:** CHM 146 Chemistry II and CHM 146 Chemistry Laboratory II and CHM 133L Survey of Organic Chemistry Laboratory**CHM 133L Survey of Organic Chemistry Laboratory****1 Credit**

Emphasis on techniques of separation, identification and purification by classical and instrumental methods such as gas chromatography and spectroscopy, and selected experiments with biomolecules.

**4 Laboratory Hours****Prerequisite:** CHM 145 Chemistry Laboratory**Corequisite:** CHM 133 Survey of Organic Chemistry**CHM 141 General Chemistry****3 Credits**

Introductory treatment of general chemistry for the non-science student emphasizing applications of chemistry in everyday life. Measurements, atoms and bonding, the states of matter, nuclear processes, oxidation and reduction solutions, acids and bases. Applications include energy sources, effects of radiation, the environment, life processes, testing of advertising claims. For Liberal Arts non-science students.

**3 Class Hours****Corequisite:** CHM 141L General Chemistry Laboratory**CHM 141L General Chemistry Laboratory****1 Credit**

Experiments to introduce chemical laboratory techniques while increasing awareness of the chemical world and to attain some insight into how a chemist attacks a problem. Qualitative and quantitative measurements.

**3 Laboratory Hours****Corequisite:** CHM 141 General Chemistry**CHM 142 General Chemistry****3 Credits**

Continuation of CHM 141 General Chemistry. Basic concepts of organic and biochemistry. Petroleum, halogenated hydrocarbons, plastics, drugs, consumer products, living systems, food and metabolism. For Liberal Arts non-science students.

**3 Class Hours****Prerequisite:** CHM 141 General Chemistry**Corequisite:** CHM 142L General Chemistry Laboratory**CHM 142L General Chemistry Laboratory****1 Credit**

A continuation of CHM 141L General Chemistry Laboratory emphasizing organic and biochemical experiments which substantiate classroom lectures.

**3 Laboratory Hours****Corequisite:** CHM 142 General Chemistry**CHM 145 Chemistry****3 Credits**

Comprehensive treatment of general chemistry for the science oriented student. Builds on their prior chemistry, with emphasis on the basic laws and theories of chemistry and their derivation from experimental evidence. Presents the qualitative and quantitative aspects of matter's composition and changes and their unifying principles. Includes physical and chemical properties, periodicity of elements, stoichiometry, current atomic and bonding theories, laws and theories of physical states and changes of state, solution chemistry.

**3 Class Hours****Prerequisite:** Regents Chemistry or CHM 102 Preparatory Chemistry and Regents Level II Math or equivalent**Corequisite:** CHM 145L Chemistry Laboratory**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**



**CHM 145L Chemistry laboratory 1 Credit**

Laboratory experiments to emphasize the empirical basis for the principles discussed in lecture and the proper gathering and interpretation of experimental data.

**3 Laboratory Hours**

**Corequisite:** CHM 145 Chemistry

**CHM 146 Chemistry 3 Credits**

Continuation of CHM 145 Chemistry including thermochemistry, kinetics, equilibrium, equilibrium in aqueous solution, coordinating chemistry and electrochemistry.

**3 Class Hours**

**Prerequisite:** CHM 145 Chemistry

**Corequisite:** CHM 146L Chemistry Laboratory

**CHM 146L Chemistry Laboratory 1 Credit**

Continuation of CHM 145L Chemistry Laboratory with emphasis on PH, spectrophotometric and potentiometric instruments and techniques and qualitative analysis.

**3 Laboratory Hours**

**Prerequisite:** CHM 145L Chemistry Laboratory

**Corequisite:** CHM 146 Chemistry

**CHM 161 Chemistry 3 Credits**

Basic concepts underlying chemical action emphasizing measurement, basic chemical calculations, atomic structure and the periodic law. Chemical bonding, states of matter, solutions, kinetic/molecular theories, chemical equilibrium and energy changes in chemical reactions.

**3 Class Hours**

**Prerequisite:** Regents Chemistry or CHM 102 Preparatory Chemistry

**Corequisite:** CHM 161L Chemistry Laboratory

**CHM 161L Chemistry Laboratory 1 Credit**

Experiments illustrating concepts from lecture. Emphasis on keeping a laboratory notebook and on laboratory skills required for the chemical laboratory. Exercises mostly quantitative in nature.

**3 Laboratory Hours, 1 Recitation Hour**

**Corequisite:** CHM 161 Chemistry

**CHM 162 Chemistry 3 Credits**

A continuation of CHM 161 Chemistry. Oxidation-reduction and electrochemistry, acids, bases and salts. Solubility product principle, acid/base equilibrium, thermodynamics. Principles of qualitative analysis.

**3 Class Hours**

**Prerequisite:** CHM 161 Chemistry and CHM 161L Chemistry Laboratory

**Corequisite:** CHM 162L Chemistry

**CHM 162L Chemistry Laboratory 1 Credit**

Experiments illustrating concepts from lecture, including seven weeks of semi-micro qualitative analysis. Emphasis on laboratory skills and notebookkeeping.

**3 Laboratory Hours, 1 Recitation Hour**

**Prerequisite:** CHM 161 Chemistry and CHM 161L Chemistry Laboratory

**Corequisite:** CHM 162 Chemistry

**CHM 220 Introduction to Instrumental Analysis 2 Credits**

An introduction to the theory and laboratory instruction in electrochemical, nuclear, optical and chromatographic methods of analytical chemistry. Laboratory techniques include potentiometry, conductimetry, coulometry, polarography, liquid scintillation counting, gamma spectrometry, ultraviolet-visible, infrared, atomic absorption spectrophotometry, gas, ion, high performance liquid chromatography, and gas chromatography, mass spectrometry. For Medical Laboratory Technology students.

**1 Class Hour, 3 Laboratory Hours**

**Prerequisite:** CHM 146 Chemistry

**CHM 245 Organic Chemistry 3 Credits**

A fundamental treatment of organic chemistry. Organic nomenclature, chemical properties of selected functional groups, mechanisms, stereochemistry and synthetic methods. For Liberal Arts science majors and Engineering Science students with departmental approval.

**3 Class Hours**

**Prerequisite:** CHM 146 Chemistry

**Corequisite:** CHM 245L Organic Chemistry Laboratory

**CHM 245L Organic Chemistry Laboratory 2 Credits**

Basic techniques of separation and purification such as recrystallization, distillation, extraction, chromatography, modern instrumental techniques. Introduction to modern organic synthesis.

**4 Laboratory Hours**

**Corequisite:** CHM 245 Organic Chemistry

**CHM 246 Organic Chemistry 3 Credits**

A continuation of CHM 245 Organic Chemistry including spectroscopy and introduction to molecules of biological importance.

**3 Class Hours**

**Prerequisite:** CHM 245 Organic Chemistry

**Corequisite:** CHM 246L Organic Chemistry

**CHM 246L Organic Chemistry Laboratory 2 Credits**

A continuation of CHM 245L Organic Chemistry Laboratory including an introduction to complex multi-step synthesis and qualitative organic analysis by classical and modern instrumental techniques.

**4 Laboratory Hours**

**Prerequisite:** CHM 245 Organic Chemistry and CHM 245L Organic Chemistry Laboratory

**Corequisite:** CHM 246 Organic Chemistry

**CHM 251 Chemical Engineering Technology Seminar ½ Credit**

Topics in the field of Chemical Engineering Technology will be presented by guest lecturers from industry and academics. For Chemical Engineering Technology students.

**1 Class Hour**

**CHM 261 Organic Chemistry 3 Credits**

A systematic study of the families of organic chemistry, including concepts of bonding, equilibria, reaction, kinetics, energy profiles, isomerism and synthesis. Families viewed with emphasis on nomenclature, structural features, preparations, reaction products and uses.

**3 Class Hours**

**Prerequisite:** CHM 162 Chemistry

**Corequisite:** CHM 261L Organic Chemistry Laboratory

**CHM 261L Organic Chemistry Laboratory 2 Credits**

Experiments include separation techniques using instrumentation (infra-red spectroscopy, gas chromatography) and synthesis.

**6 Laboratory Hours**

**Corequisite:** CHM 261 Organic Chemistry

**CHM 262 Organic Chemistry 3 Credits**

Continuation of CHM 261 Organic Chemistry. Mass spectroscopy and nuclear magnetic resonance. Special topics including heterocyclic compounds, polymers, biomolecules.

**3 Class Hours**

**Prerequisite:** CHM 261 Organic Chemistry

**Corequisite:** CHM 262L Organic Chemistry Laboratory

**CHM 262L Organic Chemistry Laboratory 2 Credits**

Emphasis on qualitative organic chemistry. Identification of unknowns.

**6 Laboratory Hours**

**Prerequisite:** CHM 261L Organic Chemistry Laboratory

**Corequisite:** CHM 262 Organic Chemistry

**CHM 265 Instrumental Methods of Chemical Analysis 3 Credits**

Principles and techniques of modern quantitative analysis including treatment of analytical data, sampling, solution adjustment, chelatometry, redoximetry, aqueous and non-aqueous acid-base titrations, electrophoresis and isoelectric focusing, ion-exchange, ion chromatography, conductimetry, coulometry electrogravimetry, polarography, amperometry, potentiometry, radioisotope methodology. For Chemical Engineering Technology and Liberal Arts "chemical model" students.

**3 Class Hours**

**Prerequisite:** 1 full year of college general chemistry and MAT 162 Applied Calculus and PHY 142 Physics

**Corequisite:** CHM 265L Instrumental Methods of Chemical Analysis Laboratory

**CHM 265L Instrumental Methods of Chemical Analysis Laboratory 2 Credits**

Application of chelometric, redox, precipitometric, aqueous and non-aqueous acid-base methods for chemical analysis of organic and inorganic compounds. Operation of polarographs, conductimeters, potentiometers, coulometers, and electroanalyzers for applications in electrochemical methods of analysis. Operation of a microprocessor controlled liquid scintillation counter, gamma spectrometer, and Geiger-Muller counter for applications in radioisotope methodology. Statistical evaluation of data obtained by the various analytical methods. For Chemical Engineering Technology and Liberal Arts "chemical model" students.

**6 Laboratory Hours**

**Prerequisite:** 1 full year of college general chemistry and MAT 162 Applied Calculus I and PHY 142 Physics

**Corequisite:** CHM 265 Instrumental Methods of Chemical Analysis

**CHM 266 Instrumental Methods of Chemical Analysis 3 Credits**

Principles and techniques of modern instrumental methods of chemical analysis, including ultraviolet, visible, infrared, nuclear magnetic resonance, atomic absorption, emission and mass spectroscopy. Ion, gas and liquid chromatography. Chemical and scanning electron microscopy and differential thermal analysis. For Chemical Engineering Technology students.

3 Class Hours

Prerequisite: CHM 265 Instrumental Methods of Chemical Analysis

Corequisite: CHM 266L Instrumental Methods of Chemical Analysis Laboratory

**CHM 266L Instrumental Methods of Chemical Analysis Laboratory 2 Credits**

Analysis by optical, separations, thermal techniques, trace methods applied to contemporary, industrial and environmental problems.

6 Laboratory Hours

Prerequisite: CHM 265 Instrumental Methods of Chemical Analysis

Corequisite: CHM 266 Instrumental Methods of Chemical Analysis

**CHM 271 Chemical Processes 3 Credits**

Material and energy balances along with applied and physical principles as they apply to chemical engineering. Emphasis on chemical problem solving.

3 Class Hours

Prerequisite: CHM 162 Chemistry, MAT 162 Applied Calculus I and PHY 142 Physics

Corequisite: CHM 271L Chemical Processes Laboratory



**CHM 271L Chemical Processes Laboratory 2 Credits**

Application of lecture topics to industrial situations. Emphasis on written and oral reports.

4 Laboratory Hours

Corequisite: CHM 271 Chemical Processes

**CHM 272 Chemical Processes 3 Credits**

Staged operations dealing with phase equilibrium. Graphical, analytical and computer methods are used to solve unit operations problems.

3 Class Hours

Prerequisite: CHM 271 Chemical Processes

Corequisite: CHM 272L Chemical Processes

**CHM 272L Chemical Processes Laboratory 3 Credits**

Measurement of phase equilibrium. Graphical, analytical and computer methods are used to solve unit operations problems.

4 Laboratory Hours

Corequisite: CHM 272 Chemical Processes

**CHM 290 Forensic Toxicology 3 Credits**

Application of the principles of forensic toxicology and the related forensic sciences within the scope of medical-legal investigation. Drug and poison analysis, examination of physical evidence and death investigation. Laboratory sessions will provide basic knowledge of forensic analysis utilizing microscopy, gas chromatography, thin layer chromatography and spectroscopy.

2 Class Hours, 2 Laboratory Hours

Prerequisite: CHM 120 Fundamental Chemistry or a semester of General Chemistry or permission of instructor

**\*CHM 291 Organic Chemistry I 3 Credits**

**\*CHM 292 Organic Chemistry II 3 Credits**

Nomenclature, properties of selected functional groups, mechanisms, stereochemistry, synthetic methods and spectroscopy. The laboratory stresses basic techniques of reactions, separations and isolations by classical methods as well as modern instrumental techniques.

2 Class Hours, 3 Laboratory Hours each

Prerequisites: CHM 146 Chemistry for CHM 291

CHM 291 Organic Chemistry I for CHM 292

**\*CHM 293 Analytical-Instrumental Chemistry I 3 Credits**

Classical analytical chemistry - sampling, statistics, gravimetric and volumetric analysis. Introduction to electrochemistry.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CHM 146 Chemistry

**\*CHM 294 Analytical-Instrumental Chemistry II 3 Credits**

Continuation of CHM 293 Analytical-Instrumental Chemistry I. Additional electrochemistry and electrochemical techniques. Emphasis on spectroscopic and chromatographic methods. Visible, infrared and nuclear magnetic resonance spectroscopy. Gas, liquid, column and thin layer chromatography.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CHM 293 Analytical-Instrumental Chemistry I

**CHM 299 Independent Study 1-4 Credits**

The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving a work assignment.

Prerequisite: Departmental approval

## **CIVIL ENGINEERING TECHNOLOGY**

**CIV 110 Introduction to Civil Engineering Technology ½ Credit**

Introduction to the College and its policies, placement, transfer and study skills. Reasonable skill in the hand-held calculator to be developed. Outside speakers representing the various sectors of employment.

1 Class Hour

**CIV 111 Surveying I 4 Credits**

Fundamentals of plane surveying. Angle and distance measurement, leveling, stadia, note keeping, operation and care of instruments, traversing and topographic surveys. Extensive laboratory application of theory.

2 Class Hours, 6 Laboratory Hours

Corequisite: MAT 161 Precalculus

**CIV 112 Surveying II 2 Credits**

A continuation of CIV 111 Surveying I. Error probability, topographic surveying and mapping, boundary surveys and deed searching, field astronomy, planetable, control surveys, state plane coordinates, use of EDM instruments. Select topics in Photogrammetry.

1 Class Hour, 3 Laboratory Hours

Prerequisite: CIV 111 Surveying I

**CIV 115 Engineering Drawing 2 Credits**

Fundamentals of Engineering Drawing includes care and use of instruments, line-work, lettering geometric constructions, orthographic projection, sections, auxiliary views, pictorial drawings, and dimensioning. Fundamentals of Descriptive Geometry including visibility, true length, true shape, parallelism, perpendicularity, intersections, and developments.

1 Class Hour, 3 Laboratory Hours

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**



**CIV 119 Architectural Drafting 2 Credits**

Fundamentals of architectural drafting including floor plans, elevations, sections, details, schedules, plot plans, plumbing layouts, electrical layouts. Introduction to solar design. Emphasis on residential drawings.

**4 Laboratory Hours**

**Prerequisite:** CIV 115 Engineering Drawing

**CIV 124 Mechanics (Statics) 3 Credits**

Static force systems and equilibrium. Free body diagrams, trusses, graphic statics, spatial force systems, friction, centroids, moments of inertia.

**3 Class Hours**

**Prerequisite:** PHY 141 Physics

**CIV 155 Surveying 3 Credits**

Plane surveying including distance measurement, note keeping, compass surveying, leveling, angle measurement, care and use of instruments, stadia, traversing, coordinates, area computation, mapping and records.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** MAT 139 Algebra and MAT 140 Trigonometry or equivalent

**\*CIV 156 Route Surveying 4 Credits**

Horizontal and vertical curves, spirals, sight distances and earthwork. Introduction to computer applications. Laboratory includes problem sessions using the college's computer to solve coordinate geometric problems.

**3 Class Hours, 2 Laboratory Hours**

**Prerequisite:** CIV 155 Surveying

**\*CIV 159 Architectural Drafting I 3 Credits**

Development of working drawing for use in residential type construction. Plot plans, floor plan, elevations, details, mechanical and electrical layouts. Lectures to include construction materials, specifications and methods.

**2 Class Hours, 3 Laboratory Hours**

**\*CIV 160 Architectural Drafting II 3 Credits**

A continuation of CIV 159 Architectural Drafting I. Development of working drawings for two-story and split-level residences.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** CIV 159 Architectural Drafting I

**\*CIV 161 Architectural Drafting III 3 Credits**

Development of a set of working drawings for a small two-story commercial building including floor plans, elevations, sections, details, mechanical and electrical layouts, window and door schedules. Term project.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** CIV 160 Architectural Drafting II

**CIV 215 Strength of Materials 4 Credits**

Concepts of stress and strain. Behavior of materials due to axial force, torsion and moment. Stresses in beams and columns, shear and moment, deflections, determinate and indeterminate members, composite members, combined stresses.

**4 Class Hours**

**Prerequisite:** CIV 124 Mechanics (Statics)

**CIV 216 Route Surveying 3 Credits**

Route surveying: Simple and compound curves, vertical curves, spirals and earthwork. Selected topics in route design, and curve problems in highway design. Computer applications (COGO). Formerly CIV 212.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** CIV 111 Surveying I

**CIV 217 Materials Testing 3 Credits**

Composition, properties and testing of construction materials. Major emphasis on plain concrete. Aggregates, cements, admixtures, design and proportioning of concrete mixes, curing and inspection. Bituminous materials and ferrous metals, load and deformation measurements, behavior of materials under load, strain gages.

**2 Class Hours, 3 Laboratory Hours**

**Corequisite:** CIV 215 Strength of Materials

**CIV 224 Reinforced Concrete Design 3 Credits**

Fundamental theory and principles for design of reinforced concrete by the strength method. Design, analysis and detailing to rectangular beams. T-beams, beams reinforced for compression, columns and footings. Theory of prestressed concrete. An integrated design and detailing project.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** CIV 215 Strength of Materials

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

**CIV 226 Structural Steel Design 3 Credits**

Fundamental theory and principles necessary for design of simple steel structures. Design, investigation and detailing of beams, columns, tension and compression members and their connections. Composite beams. An integrated design and detailing project.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** CIV 215 Strength of Materials

**\*CIV 228 Estimating and Construction Planning 3 Credits**

A systematic approach to estimating building project costs combined with a study of construction management and the critical path method of scheduling.

**2 Class Hours, 3 Laboratory Hours**

**CIV 231 Estimating and Construction Planning 3 Credits**

A systematic approach to estimating building project costs. Term project building cost estimate. Use of spreadsheet as an estimating tool.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** CIV 119 Architectural Drafting

**CIV 236 Construction Management 3 Credits**

Principles of construction management, specification writing, with emphasis on planning, building, scheduling and controlling a project. Use of critical path program.

**3 Class Hours**

**CIV 237 Hydraulics 3 Credits**

Hydraulics including properties of fluids, hydrostatics, fluid motion in or through orifices, nozzles, pipes, weirs, open channels, pipe branches and networks.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** CIV 124 Mechanics (Statics)

**CIV 238 Architectural Design and Building Materials 3 Credits**

Design and detailing of commercial building including site considerations, space requirements, layout planning, building materials, construction methods, construction details, working drawings. Emphasis on individual creativity. Semester project.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** CIV 119 Architectural Drafting

**CIV 240 Soil Mechanics 3 Credits**

Soil origin and nature, soil density, test borings, gradation, compaction, soil water, frost in soil, classification, permeability, shear strength, stress distribution, bearing capacity, piles. The laboratory covers ASTM and AASHTO specifications used in classifying and predicting behavior of soils.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** CIV 215 Strength of Materials

**CIV 255 Reinforced Concrete Design 3 Credits**

Fundamental behavior of reinforced concrete. Design and analysis of rectangular beams, T-beams, beams reinforced for compression, columns and footings. Major emphasis on ultimate strength design methods

**3 Class Hours**

**Prerequisite:** MET 235 or CIV 215 Strength of Materials

**CIV 266 Hydraulics 3 Credits**

A basic course in theory and practical applications of hydraulics. Properties of fluids, measurements, hydrostatics, dynamic problems of both pipe and open channel flow. Application and limitations of some of the design aids in common use.

**3 Class Hours**

**Prerequisite:** MET 132 Applied Mechanics or equivalent

**\*CIV 268 Engineering Economics 2 Credits**

Use of compound interest in financing and in determining engineering cost comparisons. Introduction to depreciation methods. Illustrative cases and problems (personal and engineering) including New York State Professional Engineering Examination problems.

**2 Class Hours**

**Prerequisite:** MAT 139 Algebra or equivalent

**CIV 299 Independent Study 1-4 Credits**

The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent course allowed per semester. Consideration may be given to a project involving a work assignment.

**Prerequisite:** Departmental approval

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

## COMMUNICATIONS

### COM 100 Introduction to Mass Media 3 Credits

Overview of the components of American mass media including history, structure, economics, regulation, verbal and visual imagery, and dynamics. Radio, television, newspapers, magazines, film, and the closely related advertising and public relations field are surveyed.  
3 Class Hours

### COM 110 Introduction to Photography 3 Credits

Basics of camera design and operation, plus the fundamentals of photographic visualization and composition: line, form, color light, shadow. Darkroom procedures, film processing, basic printmaking, selective printing techniques. (Students must have their own 35mm single lens reflex camera and should expect to pay for their own photographic materials - about \$60.)  
2 Class Hours, 2 Laboratory Hours

### COM 112 Intermediate Photography 3 Credits

Systems of precise exposure and processing control. Creative darkroom techniques including selective toning, hand coloring, and high contrast variation. Portfolio development. Introduction to color; color processes and printing from color slides. (Students must have their own 35mm single lens reflex cameras, and should expect to pay for their own photographic materials - about \$60.)  
2 Class Hours, 2 Laboratory Hours

Prerequisite: COM 110 or permission of instructor

### COM 115 Writing for the Media 3 Credits

An introductory study of the elements necessary for media writing. Students will be exposed to writing formats commonly used in media production. Writing formats covered may include news reporting, TV/radio advertising, drama, documentaries and sports. Students will have the opportunity to utilize their writing skills in many of the aforementioned areas.  
3 Class Hours

### COM/THR 121 Makeup for TV and Film 1 Credit

Use of prosthetics and cosmetics. Techniques of executing age, character and stylistic effects. Students to provide pertinent materials.  
2 Studio Hours

### COM 125 Introduction to Audio Theory and Production 3 Credits

Introduction to the basic aspects of technical and production techniques of audio systems, including microphone, speaker, amplifier, recording and playback theory, placement and operations. Special emphasis will be given to the use of audio equipment including taping, editing, and duplicating.  
3 Class Hours

### COM 130 Introduction to Video Theory and Production 3 Credits

Introduction to the basic aspects of technical and production techniques of television. Emphasis will be placed on theory and use of television equipment, staging, lighting, television graphics, scripting basic engineering, distribution systems and studio personnel. In addition to the student produced and directed assignments, members of the class will participate in production crews.  
3 Class Hours

### COM 135 Selection, Evaluation and Utilization of Media 3 Credits

Introductory course to help the student choose the most practical mode of media for communicating an idea or objective. Hardware and software will be demonstrated, discussed and made available for "hands on" utilization by students. Evaluation of audio-visual/LRC media to guide the student in effective utilization of instructional media materials and equipment. Students will prepare some media materials for the course.  
3 Class Hours

### COM/THR 140 Presentation for Radio/TV 3 Credits

Presentation as on-air personality. Development of visual and vocal techniques relating to presentation of news, interviews, commercials and announcements.  
3 Class Hours

### COM/SOS 155 Media and Society 3 Credits

An in depth examination and analysis of the impacts and effects of the mass media upon society and the converse societal influences upon the media. Includes such issues as media concentration, portrayal of violence, stereotyping, the public's right to know, among others.  
3 Class Hours

Prerequisite: COM 100 or SOC 110

### COM 200 Image Theory for Film Photography and Television 3 Credits

Study of important theories of image production and effectiveness. Survey of several significant photographers, filmmakers, and television artists and their work. Emphasis on the formal elements of the still and moving image and their psychological and aesthetic effects.  
3 Class Hours

### COM 203 Beginning Filmmaking I 3 Credits

Introduction to the craft of filmmaking. A hands-on approach to basic principles of photography, camera operation, lighting and editing used in the making of motion pictures. Introduction to sound recording. Students must pay their own film and laboratory fees.  
2 Class Hours, 2 Laboratory Hours

### COM 204 Filmmaking II 3 Credits

Advanced work in filmmaking. The student will do hands-on work in both single system and double system sound. He will study scriptwriting, working with actors, and the business side of filmmaking. Each student will be expected to complete a brief film using double system sound as a final project. Students must pay for their own film and laboratory fees.  
2 Class Hours, 2 Laboratory Hours

Prerequisite: COM 203 Filmmaking I

### COM 210 Advanced Video Production 3 Credits

This course stresses the application of basic video production theory and techniques as they apply to a variety of productions such as Advertisements, News, Drama, Sports or other such events. Students will be responsible for ideas, scripting, design, production, editing and evaluation of final projects. Both studio and portable systems will be available for student use.  
2 Class Hours, 2 Studio Hours

Prerequisite: COM 130 Introduction to Video Theory and Production

### COM 230 Technical Foundations for the Media Technician 3 Credits

A practical study of cables, connectors and interconnections as they relate to AV equipment and Audio/Television Production Control equipment. Also included is a basic study of D.C. electricity, an Intro to A.C. fundamentals, filtering circuitry, power supply circuitry and associated electrical measurement equipment.

### COM 250 Internship (TBA) 2-3 Credits

Placement in a communications related job. Involves in addition to job requirements, directed reading, meetings with the intern supervisor, and written assignments. Internships are not paid positions.

### COM/THR 266 Acting for TV, Film and Commercials 3 Credits

Proficiency in performing before the camera. Character analysis, quick-study, re-takes, voice-overs, studio projection, facial nuances, and subtlety of mannerism.  
2 Class Hours, 2 Studio Hours

### COM 299 Independent Study 1-3 Credits

An individual student project concerned with advanced work in a special area of communication. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.(Requires application and approval.)

Prerequisite: 3 semester hours of college level work in communications

## COMMUNITY INTERNSHIP

### CTP 275 Community Internship 3 Credits

A non-paid, supervised internship related to a student's planned major or career concentration. Arranged contractually with supervising faculty member. Involves, in addition to work at the placement site, periodic conferences with campus mentor, prescribed reading and written assignments. Students must have an overall "B" or 3.0 average to qualify. Requires personal interviews with campus mentor and intern site supervisor(s).



# COMPUTER GRAPHICS

DEPARTMENT CHAIRPERSON, Gary E. Ostrander  
Applied Technology Building, Room 003  
Telephone 771-5337

The Computer Graphics Department services various College programs by providing required and elective courses in Computer Graphics. Courses are available to Broome Community College students days and evenings, and special contract courses are offered to employees of local industries in the College CAD Center and at industrial sites. Various technical and Engineering programs at Broome Community College have offered courses including three-dimensional modeling since the spring of 1982.

The College CAD Center currently has an Industrial CAD System from IBM supporting courses in both CADAM and CATIA. Another Industrial CAD System has been replaced with new Engineering Workstations and MicroCAD (CAD on personal computers) Workstations hosting various software packages to support existing college programs.

Broome Community College has been designated by the New York State Education Department as a Resource and Development Center for Drafting Occupations and Graphics, Printing, and Visual Communications Occupations for New York State. The function is to serve as a clearing house between industry and education for matters relating to these fields.

## CAD 150 Basic CADAM

2 Credits

Introduction to the operation of CADAM System. Data base hierarchy. Construction of basic drawing elements. Display management. Manipulation of drawing elements. Creation of simple mechanical Layouts and detail drawings in two dimensions. Methods for efficient use of the CADAM System. Selected topics.

1 Class Hour, 2 Laboratory Hours

Prerequisite: MAT 161 Precalculus or equivalent and background in engineering drawing.

## CAD 151 Advanced CADAM

2 Credits

Construction of advanced and specialized drawing projects, including mechanical layout and detail drawings. Use of all menu options for creating, modifying and manipulating elements. SPLINE function. Advanced use of NOTE DIMENSION, Aux view and SYMBOL functions. Introduction to sets and attributes and the OFFSET function. Selected topics.

1 Class Hour, 2 Laboratory Hours

Prerequisite: CAD 150 Basic CADAM

## CAD 155 Architectural Applications

1 Credit

Architectural applications on the College's CADAM System. Residential floor plans, elevations, sections, details, schedules. Dimensioning. Selected topics.

3 Laboratory Hours

Prerequisite: CAD 150 Basic CADAM, and CIV 119 or CIV 159 Architectural Drafting

## CAD 205 Introduction to Computer Graphics with Architectural Applications

3 Credits

Introduction to the operation of the College's CAD System. Construction of basic two dimensional drawing elements. Editing existing drawing elements. Display control. Management of drawing files. Dimensioning. Inserting text. Use of symbol libraries. Isometric drawing. Architectural applications — residential floor plans, elevations, sections, details. Selected topics.

2 Class Hours, 3 Laboratory Hours

Prerequisite: Mat 140 Trigonometry or equivalent, and an acceptable background in engineering or architectural drawing.

## CAD 211 Basic Mechanical Design

2 Credits

Introduction to the College's CAD Systems. Command structure. Use of commands necessary to draw and manipulate two-dimensional models. Introduction to three-dimensional concept. Text files. Selected topics.

1 Class Hour, 2 Laboratory Hours

Prerequisite: MAT 161 Precalculus or equivalent and background in engineering drawing.

## CAD 212 Detailing

2 Credits

Use of the College's CAD Systems to produce engineering production drawings from a three-dimensional model database and to enhance the appearance of model geometry to meet standard drafting conventions. Dimensions and Tolerancing to industry standards. Create drawing formats. Selected topics.

1 Class Hour, 2 Laboratory Hours

Prerequisite: CAD 211 Basic Mechanical Design

## CAD 213 Intermediate Mechanical Design

2 Credits

Use of the College's CAD Systems with commands necessary to draw and manipulate three-dimensional models. Multiple views of models including 6 standard views, auxiliary views, and axonometric views. Definition and intersection of basic surfaces. Applications to assemblies. Selected topics.

1 Class Hour, 2 Laboratory Hours

Prerequisite: CAD 211 Basic Mechanical Design

## CAD 214 Advanced Mechanical Design

2 Credits

Use of the College's CAD Systems in advanced applications. Mass properties of individual and composite volumes. Advanced Surface Design - commands and design approach. Applications to Descriptive Geometry - intersections, developments, B-Splines. Selected topics.

1 Class Hour, 2 Laboratory Hours

Prerequisite: CAD 213 Intermediate Mechanical Design

## CAD 221 Basic CAD For Electrical

3 Credits

Fundamentals of computer aided design applied to electrical field. Graphics commands for construction of two-dimensional parts. Library part construction, schematic diagrams, and printed circuit board layout. Use of text management, autoroute; data extract, and design checking files.

2 Class Hours, 4 Laboratory Hours

Prerequisite: Acceptable background in mechanical drawing, EET 150 Electronic Devices, equivalent industrial experience, or permission of the instructor.

## CAD 230 CAD System Operation

3 Credit

System architecture - physical components. Hands-on experience. Building a system, day-to-day operating procedures, system failures and recovering procedures. Disc file management, magnetic tape back-ups.

2 Class Hours, 4 Laboratory Hours

Prerequisite: One previous credit course from the Computer Graphics Department.

## CAD 250 Basic CATIA

2 Credits

Introduction to the operation of the CATIA System. Construction of 3-D wire frame models. Display management. Manipulation of elements. Definition of planar and curved surfaces. Construction of solid models from wireframe models and from primitive solids. Methods of efficient use of the CATIA System, including storage and retrieval of models.

1 Class Hour, 2 Laboratory Hours

Prerequisite: CAD 150 Basic CADAM

## CAD 299 Independent Study

1-4 Credits

The student undertakes an independent project in his/her specialty under the guidance of a faculty member which is beyond the scope of courses currently offered by the department. Only one independent study course allowed per semester. Consideration may be given to a project involving a work assignment.

Prerequisite: Permission of Computer Graphics Chairperson

# COMPUTER STUDIES

## CST 101 Orientation

0 Credits

An opportunity for students to receive information about advisement and registration, transfer, interview techniques. Listening to speakers from Broome Community College, from other colleges, and from business and industry. May be used as a common testing hour for multi-section courses. All full-time Computer Studies students are required to register for this course every semester.

## CST 105 Understanding Computers\*

3 Credits

An introductory course in computer concepts. An integrated software package will be used to familiarize students with word processing, spreadsheets, and file management. Commercial packages from the students area of concentration may be presented.

2 Classes, 2 Laboratory Hours

Corequisite: MAT 090B Elementary Algebra or Equivalent

## CST 107 Business Applications on the Microcomputer\*

3 Credits

Use of business applications software on the IBM PC. Hands-on experience with an integrated system that includes a word processor, spreadsheet, and database used as a problem solving tool. Commercial versions of other applications software are explained and demonstrated.

3 Class Hours

Prerequisite: BUS 100 Accounting I and a proficiency in Typing.

\*Students can not receive credit for both CST 105 and CST 107.

**CST 108 Programming in Basic****3 Credits**

Introduction to computer programming using BASIC on the IBM-PC. No previous programming experience is necessary. Topics include input-output statements, IF-THEN statement, FOR-NEXT loops, WHILE loops, subscribed variables, string manipulation. Modular development and self documentation will be emphasized. MAY NOT BE TAKEN FOR DEGREE CREDIT BY COMPUTER STUDIES STUDENTS.

**2 Class Hours, 2 Laboratory Hours****Prerequisite:** MAT 090A Elementary Algebra or equivalent**CST 114 Introduction to Computing****3 Credits**

Problem solving using modular structured design. Computer hardware: input and output devices, memory, CPU, classification of computers. Information representation: binary, octal, hexadecimal arithmetic. Historical development and social implications of computers: applications, privacy, security, ethics. Lab work on both mainframe and microcomputers. Word processing will be introduced and used to write papers. Other lab work includes operating system use, file management and spreadsheet software, comparison of interactive and compiled languages. REQUIRED FOR COMPUTER STUDIES STUDENTS.

**2 Class Hours, 2 Laboratory Hours****Prerequisite:** MAT 139 Algebra or equivalent**CST 115 Introduction to Pascal****3 Credits**

Introduction to the fundamentals of structured programming using Pascal. Topics include input-output statements, data types, loop structures, procedures and functions, records. Lab assignments emphasize modular design and self documentation using examples from business rather than from mathematics. Programming will be done on the IBM-PC using Turbo Pascal. MAY NOT BE TAKEN FOR DEGREE CREDIT BY COMPUTER STUDIES STUDENTS. (See CST 132)

**2 Class Hours, 2 Laboratory Hours****Prerequisite:** MAT 090B Elementary Algebra or equivalent and an introduction to computing course**CST 116 RPG II and RPG III****3 Credits**

Fundamentals of RPG (Report Program Generation), a language used by many small business installations. Topics include specification sheets, internal logic, control breaks, branching, tables and table look-up. Lab assignments will be done in RPG II. Additional topics from RPG III will be discussed.

**2 Class Hours 2 Laboratory Hours****Prerequisite:** CST 105 Understanding Computers or CST 114 Introduction to Computing.**CST 118 Introduction to COBOL****3 Credits**

Introduction to the fundamentals of structured programming using COBOL. Business oriented lab problems will be assigned. Topics include structured design, use of files, report generation, control breaks, interactive techniques. MAY NOT BE TAKEN FOR DEGREE CREDIT BY COMPUTER STUDIES STUDENTS. (See CST 128)

**2 Class Hours, 2 Laboratory Hours****Prerequisite:** MAT 090B Elementary Algebra or equivalent and an introduction to computing course**CST 122 Scientific Computer Programming-FORTRAN****3 Credits**

Introduction to problem solving techniques using FORTRAN including development of an algorithm, flow charting, program writing, debugging, storage, and execution, input and output, loop techniques, array manipulation, file control and control of on-line equipment, structured programming, terminal and batch operations. Material to be covered taken from student's area of study. For engineering technology students.

**2 Class Hours, 2 Laboratory Hours****Prerequisite:** Working knowledge of algebra and trigonometry**CST 123 Introduction to Ada****3 Credits**

Introduction to problem solving using the programming language Ada. All required steps to develop and execute an Ada program will be covered. Data types including arrays and records, control statements and loop structures, block structuring and modular programming using functions and procedures, packages, exception handling. MAY NOT BE TAKEN FOR DEGREE CREDIT BY COMPUTER STUDIES STUDENTS. (See CST 182)

**2 Class Hours, 2 Laboratory Hours****Prerequisite:** MAT 140 Trigonometry or equivalent and an introduction to programming.**CST 124 Computer Programming for Engineering****3 Credits**

FORTAN programming with applications in engineering, statistics and mathematics. Topics include syntax, looping, data representation, branching, functions and subroutines, multidimensional arrays. Simulation of engineering processes and graphical displays using CAD/CAM system.

**2 Class Hours, 2 Laboratory Hours****Prerequisite:** MAT 140 Trigonometry and EGR 150 Engineering Graphics**CST 128 Structured Programming in COBOL****4 Credits**

Problem solving using the structured programming techniques of COBOL. Top down design is emphasized. Programming steps include program definition, structure charts, coding, debugging, testing and validation, documentation and program maintenance. Topics include file handling, looping, program modularization, control breaks, tables, and interactive programming. Lab assignments reflect common business applications. FOR COMPUTER STUDIES STUDENTS. (Others see CST 118)

**3 Class Hours, 2 Laboratory Hours****Prerequisite or corequisite:** CST 114 Introduction to Computing**CST 130 PL/I****3 Credits**

Introduction to PL/I, a general purpose structured programming language capable of handling both scientific and business problems. Data types and attributes, declaration, assignment, control, iteration, arrays and structures, string techniques, procedures and blocks, functions, input/output, formatting.

**2 Class Hours, 2 Laboratory Hours****Prerequisite:** One programming language or permission of instructor.**CST 132 Structured Programming in Pascal****4 Credits**

Problem solving using the structured programming techniques of Pascal. Top down design and modular structure will be emphasized. Programming steps include program definition, structure charts, coding, debugging, testing and validation, documentation, program maintenance. Topics covered include loop structures, procedures, functions, scalar and ordinal types, arrays, records, and text files. Lab assignments will require modular structured programming. FOR COMPUTER STUDIES STUDENTS. (Others see CST 115)

**3 Class Hours, 2 Laboratory Hours****Prerequisite or corequisite:** CST 114 Introduction to Computing**CST 140 Computer for Chemists****3 Credits**

Introduction to the application of microcomputers to problems in chemistry. The principles of structured programming are examined, using BASIC and other high level packaged programs, including algorithm development, flow charting, debugging and execution. Introduction to the use of microcomputers to control laboratory equipment and to collect and process real-time data. For Chemical Engineering Technology students.

**2 Class Hours, 2 Laboratory Hours****Corequisite:** CHM 162 Chemistry or CHM 146 Chemistry and MAT 162 Applied Calculus I or Mat 181 Calculus I with Analytic Geometry I or permission of Chemistry Department Chairperson**CST 141 FORTRAN Programming with Graphic Applications****3 Credits**

Introduction to problem solving techniques using FORTRAN. Development of steps to solve a problem (algorithm), use of text editor, terminal operation, file storage and retrieval, program writing, debugging, execution and program documentation. Components include input/output, formatting, loop techniques, array manipulation, use of complex numbers, subroutines, sequential access data files. Graphic applications include figure creation, scaling, plots of X-Y data, equations and polar plots. For Electrical Engineering Technology students.

**2 Class Hours, 2 Laboratory Hours****Corequisite:** MAT 161 Precalculus**CST 158 Spreadsheets with Financial Applications****3 Credits**

An introduction to commonly encountered financial calculations which can be done efficiently with a spreadsheet package. Topics include interest problems, amortization, capital depreciation, break-even analysis, and forecasting. Labs will be done on the IBM-PC using Lotus 1-2-3.

**2 Class Hours, 2 Laboratory Hours****Prerequisite:** MAT 139 College Algebra or equivalent and an Introduction to Computing Course**CST 170 Digital Logic****3 Credits**

Comprehensive coverage of basic gates. Boolean algebra, Karnaugh mapping and Quine McCluskey technique for circuit simplification. Adders, subtractors, multiplexers, code converters, asynchronous and synchronous counters presented in detail as basic computer building blocks. Analog-digital and digital-analog interfacing. Lab exercises utilize TTL and CMOS chips.

**2 Class Hours, 2 Laboratory Hours****Prerequisite:** CST 114 Introduction to Computing**Prerequisite or Corequisite:** CST 132 Structured Programming in Pascal.



### **CST 180 FORTRAN, A Second Course 3 Credits**

For students with previous programming experience in another programming language. Problem solving using structured FORTRAN. Complete program development including definition, FORTRAN coding, debugging and testing. Full documentation required for each program including a structure chart and a program logic manual. Topics include: loop and branch structures, arrays, subprograms, data types, formatted and list directed input/output, data structures, sequential and random access files, buffers and unformatted input/output.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** CST 132 Structured Programming in Pascal or permission of instructor

### **CST 181 IBM Assembler Language 4 Credits**

System/360 and 370 hardware and software overview, program design, test, debug, documentation and execution, addressing, standard linkage conventions, input/output techniques and data sets, instruction formats, machine and assembly code, data storage and boundaries, logical instructions, fixed-point binary arithmetic, decimal arithmetic, subroutines, branching and looping, macros.

**3 Class Hours, 3 Laboratory Hours**

**Prerequisites:** Introduction to computer programming course and at least one intensive structured programming language course

### **CST 182 Ada, A Second Course 3 Credits**

For students with previous experience in structured programming. A review of structured programming fundamentals: type declarations, procedures and functions, files. Generic subprograms and packages, private and access types, tasking and parallel computation, external interfaces and exception handling, low-level input-output. Complete program development will be required.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisites:** MAT 161 Precalculus or equivalent and one of the following: CST 132 Structured Programming in Pascal, CST 128 Structured Programming to Cobol, CST 123 Introduction to Ada, CST 115 Introduction to Pascal, permission of the instructor

### **CST 200 Systems Analysis I 3 Credits**

A first course dealing with the principles of systems analysis and problem solving, concentrating on investigation and analysis of systems and their resulting design. The importance of standards, procedures, documentation and design tools. A team case study used to develop a design for a new system.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** CST 128 Structured Programming in COBOL

### **CST 201 Systems Analysis II 3 Credits**

Continuation of the principles of systems analysis with a concentration on systems development, implementation and evaluation. A team case study approach used to develop a system based on previously completed analysis and design. Programs written using COBOL and structured programming techniques.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** "C" grade or better in both CST 218 Advanced COBOL, and CST 200 Systems Analysis I

### **CST 202 Advanced Pascal with Data Structures 3 Credits**

Static and dynamic data structures. Choice of proper structure to organize data. Topics include arrays, records, files, linked lists, trees, stacks, queues, directed graphs. Lab work will introduce applications of the topics and will be done on the IBM-PC in Turbo Pascal. Structured modular programming is required.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** CST 132 Structured Programming in Pascal with a Grade "C" or better

### **CST 213 Databases 3 Credit**

Concepts of information structures. Linked-list, hierarchical, network, and relational database models. Application development with database systems. Database administration, multi-user systems, data security. Labs will use both mainframe and microcomputer database systems.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** CST 128 Structured Programming in COBOL or CST 132 Structured Programming in Pascal

### **CST 214 Computer Operations: Procedures and Management 3 Credits**

A broad based course introducing the concepts of operations and scheduling in the computer center environment. An overview of some of the concepts of operating systems. Operating systems such as UNIX, PC-DOS, and VMS will be reviewed. This course will NOT involve writing operating system programs. Topics include Job Control Language, command files, computer center operations, scheduling, high-level programming tools. Labs will provide hands-on experience with operations and systems.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** CST 128 Structured Programming in COBOL or CST 132 Structured Programming in Pascal

### **CST 218 Advanced COBOL 3 Credits**

A second course in the use of COBOL language as a means of implementing computerized solutions to data processing problems. Batch interactive processing, various file access techniques, use of advanced language statements and of various utilities to the COBOL programmer.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** CST 128 Structured Programming in COBOL with C grade or better

### **CST 220 Microprocessors and Assembly Language Programming 3 Credits**

An introduction to microcomputer and coprocessor architecture using the Intel family from 8088 through 80386 and 8087 through 80387. Programming modes, branching, flags, stacks, subroutines, interrupts, procedures and interfacing. Extensive assembly language programming to reinforce these concepts. Programming concepts include fundamental arithmetic operations, multiple precision using the coprocessor, string handling, logic operations.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** One structured Programming Language

**Corequisite or prerequisite:** CST 170 Digital Logic

### **CST 222 Topics in Computer Systems 3 Credits**

Topics in this course acquaint students with current techniques and equipment. They may include microprocessors programming and interfacing: scheduling, queueing, time-sharing, filing manipulations; microcomputer programming and graphics; data communications systems.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** CST 132 Structured Programming in Pascal or instructor's permission

### **CST 225 Introduction to Small Systems 3 Credits**

Introduction to the concepts and implementation of small computer systems. Hardware and software techniques, Keyboards, display terminals, printers, graphics, magnetic storage, disk drives, disk operating systems, telecommunications techniques, and networking. Extensive use of the IBM-PC in the laboratory will reinforce classroom concepts.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** CST 220 Microprocessors and Assembly Language Programming with a "C" grade or better and CST 132 Structured Programming in Pascal

### **CST 228 C—Fundamentals, Applications & Techniques 3 Credits**

For students with previous programming experience in Pascal and Assembly Language. Fundamental C topics include: Structure of C programs, variables, constants, arithmetic and logic operations, input and output, loops, conditional statements and branching, parameter passing, and use of standard C libraries. Advantages and disadvantages of C as a programming language. More advanced topics include: memory models, interrupt functions, assembly language interfacing and use of additional C libraries. Laboratory work and projects will be required for this course.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisites:** CST 132 Structured Programming in Pascal

**Pre- or Corequisites:** CST 220 Microprocessors and Assembly Language Programming.

### **CST 297 Cooperative Work Experience 1-3 Credits**

Cooperative education in computing may be available. On-the-job experience may be obtained by working with businesses, industries and offices whose operations require the use of computers. To be eligible a student must maintain a cumulative grade point average of 2.5 with a 3.0 average in CST courses and have no F grades.

### **CST 299 Independent Study 1-3 Credits**

The student undertakes an independent project, under the guidance of a faculty member, which is beyond the scope of courses currently offered by the department. Only one independent study project allowed per semester.

# CRIMINAL JUSTICE

**Criminal Justice (CRJ) courses may not be used to satisfy the Social Science requirement.**

*The Criminal Justice program was developed with great flexibility in course selection and can be taken on a part-time basis by those individuals currently employed in the field. Those students who wish to pursue it on a full-time basis should contact the Program Coordinator of Criminal Justice. Very close planning and advisement will be necessary to pursue this program to its completion in two years.*

## **CRJ 101 Introduction to Criminal Justice 3 Credits**

Overview of the major components of the criminal justice system-law enforcement, prosecution, trial courts and corrections. A systems approach is utilized with an emphasis on the structure, functions and independence of these and other criminal justice system components.  
**3 Class Hours**

## **CRJ 115 Juvenile Justice System 3 Credits**

Overview of the juvenile system, including the history, process, status and philosophy of the juvenile court. Law enforcement handling of juveniles, various theories of delinquency, causation, correctional programs and alternative methods of dealing with juvenile offenders.  
**3 Class Hours**

## **CRJ 105 Introduction to Corrections 3 Credits**

Overview of the corrections components of the criminal justice system, tracing the history of corrections in the United States. Relationships and interdependencies of corrections with the court and law enforcement components of the criminal justice system and a discussion of the theoretical basis for the four major types of correctional models.  
**3 Class Hours**

## **THE FOLLOWING CRIMINAL JUSTICE COURSES ARE TAUGHT IN THE EVENING ONLY**

### **\*CRJ 125 Penal Law 3 Credits**

Essential elements of the various crimes under the New York State Penal Law. The concepts of culpability and criminal defenses recognized under the New York State Penal Law as they relate to murder, rape, robbery, burglary, arson, assault, drug offenses, disorderly conduct and harassment.  
**3 Class Hours**

### **\*CRJ 130 Introduction to Security 3 Credits**

Organization and management of the security function in industry, business, government and institutions. The protection of personnel, facilities and other assets, as well as administrative, legal and technical problems of loss prevention and control.  
**3 Class Hours**

### **\*CRJ 212 Criminal Procedure and Constitutional Law 3 Credits**

The right to counsel, search and seizure, confessions, lineups, electronic surveillance, probation and parole.  
**3 Class Hours**  
**Prerequisite:** CRJ 101 Introduction to Criminal Justice

### **\*CRJ 215 Police Administration 3 Credits**

Fundamentals of organization, supervision and over-all management of police and civilian personnel. Designed to supply a background for the student in dealing with the complexities involved in the management aspect of various police agencies.  
**3 Class Hours**  
**Prerequisite:** CRJ 101 Introduction to Criminal Justice

### **\*CRJ 225 Security Administration 3 Credits**

Administration of public and private security efforts: problems in protection program development and evaluation, functions of various levels of personnel, company/organizational relations, documents and personnel access control, detection systems, devices, and equipment, emergency and disaster planning, new directions in the field of security.  
**3 Class Hours**  
**Prerequisite:** CRJ 130 Introduction to Security or permission of the instructor/department chairperson.

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

### **\*CRJ 230 Criminal Investigation 3 Credits**

Basic principles of investigation as they relate to the collection, preservation, identification and examination of physical evidence. Techniques for locating and interviewing witnesses and interrogating suspects.  
**3 Class Hours**  
**Prerequisite:** CRJ 101 Introduction to Criminal Justice and CRJ 125 Penal Law

### **\*CRJ 255 Special Topics in Criminal Justice 1-3 Credits**

The specific area to be covered will be based upon identified needs and interests of criminal justice students. This course also provides a forum for professional individuals in the criminal justice field with a particular expertise to share their knowledge and skills with students.  
**1-3 Class Hours**

**Prerequisite:** CRJ 101 Introduction to Criminal Justice and 2 other CRJ courses.

### **CRJ 260 Organized Crime 3 Credits**

Role of legal system in organized crime control, preventative methods, political influences; white collar crime, methods of intelligence gathering; relationships of organized crime to community social structure.  
**3 Class Hours**

**Prerequisite:** CRJ 101 Introduction to Criminal Justice department permission

### **CRJ 299 Independent Study 1-3 Credits**

An individual student project concerned with advanced level work beyond the scope of breadth of regular courses. A specific area or topic is investigated under the direction of a faculty member. Must be approved by department chairperson.

**Prerequisite:** CRJ 101 Introduction to Criminal Justice and 6 credits in CRJ courses

# DENTAL HYGIENE

## **DEN 101 Dental Hygiene I 2 Credits**

Contemporary practice of dental hygiene and factors affecting such practice. Basic techniques of preparation for the dental hygiene appointment, patient evaluation and patient treatment.

**2 Class Hours**

**Corequisite:** DEN 101L Dental Hygiene Laboratory

## **DEN 101L Dental Hygiene Laboratory 2 Credits**

Practical application in an actual clinical setting of the principles described in lecture mode of the course.

**6 Laboratory Hours**

**Corequisite:** DEN 101 Dental Hygiene I

## **DEN 102 Dental Hygiene II 4 Credits**

Continuation of DEN 101 Dental Hygiene I. Clinical experience in the basic techniques of dental hygiene care including patient appraisal, treatment planning, instrumentation and patient oral health instruction. Theory in ethics, jurisprudence, professional organizations, emergency medical and dental procedures and care of patients with special medical problems and oral physiotherapy and oral health instruction.

**4 Class Hours**

**Prerequisites:** DEN 101 Dental Hygiene I, and DEN 103 Oral Anatomy and Physiology Lab; BIO 131 Human Biology I or permission of the department.  
**Corequisite:** DEN 102L Dental Hygiene II Clinic

## **DEN 102L Dental Hygiene Clinic 2 Credits**

Clinical dental hygiene practice.

**8 Laboratory Hours**

**Corequisite:** DEN 102 Dental Hygiene II

## **DEN 103 Oral Anatomy and Physiology 2 Credits**

Normal structure and function of the oral cavity (microscopic and gross).

**2 Class Hours,**

**Corequisite:** DEN 103L Oral Anatomy and Physiology Laboratory

## **DEN 103L Oral Anatomy and Physiology Laboratory 2 credits**

Laboratory work provides experience with microscopic and macroscopic study of structures in the oral cavity.

**4 Laboratory Hours**

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**



**DEN 106 Clinical Dental Radiography 1 Credit**  
Radiation physics and biology; understanding of radiation health, safety and protection; radiograph film quality, intraoral dental radiographic techniques, film processing and mounting, interpretation of radiographic factors and recognition of anatomical landmarks.  
**1 Class Hour**  
**Prerequisite:** DEN 101 Dental Hygiene I, DEN 103 Oral Anatomy and Physiology Lab; BIO 131 Human Biology I or permission of the instructor  
**Corequisite:** DEN 106L Clinical Dental Radiography Laboratory

**DEN 106L Clinical Dental Radiography Laboratory 1 Credit**  
Practical application on manikins and patients of principles described in lecture mode.  
**2 Laboratory Hours**  
**Corequisite:** DEN 106 Clinical Dental Radiography

**DEN 110 Dental Materials 3 Credits**  
Composition, chemical and physical properties and use of materials used in dental laboratory and operator. Laboratory sessions will provide experience in performing common dental laboratory procedures and background for clinical application of expanded functions.  
**2 Class Hours, 3 Laboratory Hours**  
**Prerequisite:** DEN 103 Oral Anatomy and Physiology Lab or permission of the instructor

**DEN 201 Dental Hygiene III 2 Credits**  
Continuation of DEN 102 Dental Hygiene II. Integration of theory with clinical experience in various oral hygiene preventative procedures. Emphasis on planning and execution of the total patient treatment.  
**2 Class Hours**  
**Prerequisite:** DEN 102 Dental Hygiene II, DEN 106 Clinical Dental Radiography, DEN 110 Dental Materials, BIO 106 Microbiology, BIO 131 Human Biology I and BIO 132 Human Biology II.  
**Corequisite:** DEN 201L Dental Hygiene III Clinic

**DEN 201L Dental Hygiene III Clinic 3 Credits**  
Clinical dental hygiene practice.  
**12 Laboratory Hours**  
**Corequisite:** DEN 201 Dental Hygiene III

**DEN 202 Dental Hygiene IV 2 Credits**  
Continuation of DEN 201 Dental Hygiene III. Comprehensive clinical experience in all phases of dental hygiene practice. Introduction to computer use in dental office management.  
**2 Class Hours**  
**Prerequisite:** DEN 201 Dental Hygiene III, DEN 204 General and Oral Pathology, DEN 205 Periodontology and DEN 209 Nutrition  
**Corequisite:** DEN 202L Dental Hygiene IV Clinic

**DEN 202 L Dental Hygiene IV Clinic 3 Credits**  
Clinical dental hygiene practice.  
**12 Laboratory Hours**  
**Corequisite:** DEN 202 Dental Hygiene IV

**DEN 204 General and Oral Pathology 3 Credits**  
Broad picture of the disease process through the study of common general diseases, their cause, results and treatment. Emphasis on the principles of inflammation, healing and repair, oral disease, their causes, recognition and treatment.  
**3 Class Hours**  
**Prerequisite:** DEN 102 Dental Hygiene II, BIO 132 Human Biology and BIO 160 Microbiology or permission of the instructor

**DEN 205 Periodontology 2 Credits**  
Overall study of the pathology of the supporting structures surrounding the teeth. Special emphasis on recognition and treatment of the periodontal patient within the scope of the dental hygienist.  
**2 Class Hours**  
**Prerequisite:** DEN 102 Dental Hygiene II, DEN 106 Clinical Dental Radiography, BIO 132 Human Biology II and BIO 160 Microbiology or permission of the instructor.

**DEN 206 Dental Pharmacology 2 Credits**  
Pharmacology as it affects the clinical practice of dental hygiene and dentistry. Drugs commonly used in dentistry and correct methods for their use. Emphasis on pharmacological aspects of anesthesia.  
**2 Class Hours**  
**Prerequisite:** DEN 201 Dental Hygiene III or permission of the instructor

**DEN 209 Nutrition 3 Credits**  
Basic nutrition principles, including metabolism, functions, sources, and conditions resulting from excessive or inadequate intake of each nutrient. Study of diet planning, dietary guidelines, weight control, nutrition care throughout the life cycle., and current nutrition topics. Special emphasis on the relation of nutrition to the oral cavity, interviewing, nutritional counseling, computer aided dietary analysis, and its practice in the dental office.  
**3 Class Hours**  
**Prerequisite:** DEN 102 Dental Hygiene II or permission of the instructor

**DEN 213 Public Health 3 Credits**  
Principles of public health and fundamentals of assessing, planning, implementing and evaluating of public health care with emphasis on community dental health. Laboratory experience in assessing, planning, implementing and evaluating care for a particular target population.  
**2 Class Hours, 2 Laboratory Hours**  
**Prerequisite:** DEN 102 Dental Hygiene II

**DEN 214 Dental Specialties 2 Credits**  
Overview of dental specialties with emphasis on those specialties not covered in other courses in the Dental Hygiene curriculum-endodontics, orthodontics, pedodontics.  
**2 Class Hours**  
**Prerequisite:** DEN 201 Dental Hygiene III or permission of the instructor

**DEN 298 Independent Study - Fall 1-3 Credits**  
Advanced studies in Dental Hygiene conducted under the guidance of a Dental Hygiene instructor.  
**Prerequisite:** DEN 101, 102 Dental Hygiene I and II and permission of Department Chairperson

**DEN 299 Independent Study - Spring 1-3 Credits**  
Advanced studies in Dental Hygiene conducted under the guidance of a Dental Hygiene instructor.  
**Prerequisite:** DEN 101, 102 Dental Hygiene I and II and permission of Department Chairperson

## DIETARY MANAGER

*These courses are designed for individuals already employed in the food service field, as there is a requirement for supervised work experience with a Registered Dietitian. All persons entering the program are responsible for finding a preceptor, and registrations are on a pre-application basis.*

**DIA 101 Nutrition 3 Credits**  
The social, cultural, psychological and physiological functions of food. Nutrition care throughout the life cycle. Special consideration given to modifications of the basic diet to meet the needs of the resident in health care facilities. Techniques of interviewing, medical ethics and documentation procedures of medical records.  
**2 Class Hours, 4 Directed Practice**

**DIA 102 Institutional Food Preparation 3 Credits**  
Principles of food preparation, standardization of recipes, menu structure and planning. Serving, merchandising and promotion of food items. Emphasis on sanitation and safety practices in food service departments.  
**2 Class Hours, 4 Directed Practice**

**DIA 201 Food Management Systems 3 Credits**  
Introduction to the health field and its interrelationships. Control through specification, purchasing, inventory, cost analysis. Equipment maintenance and management safety practices.  
**2 Class Hours, 4 Directed Practice**

**DIA 202 Personnel Management 3 Credits**  
Leadership and supervisory techniques. Concepts of management including the principles of organizing, evaluating, and the decision-making process. Implications of authority and responsibilities. Understanding and communications with workers and co-workers. Employee recruitment, training and evaluation. Morale and labor relations.  
**2 Class Hours, 4 Directed Practice**

## EARLY CHILDHOOD

Early Childhood (CDC) courses may not be used to satisfy the Social Science requirement.

*The Early Childhood program was developed with great flexibility in course selection and can be taken on a part-time basis by those individuals currently employed in the field. Those students who wish to pursue it on a full-time basis should contact the program Coordinator of Early Childhood. Very close planning and advisement will be necessary to pursue this program to its completion in two years.*

**MOST EARLY CHILDHOOD COURSES (THOSE WITH CDC DESIGNATION) ARE OFFERED ONLY IN THE EVENING. FULL-TIME EARLY CHILDHOOD STUDENTS MUST PLAN FOR BOTH DAY AND EVENING CLASSES.**

### **\*CDC 100 Introduction to Education of Young Children 3 Credits**

An over-all view of early childhood education and where it is going. Discussion of various philosophies and methods, programming, scheduling (what should go into scheduling a day for a pre-schooler and when). Focus on social, emotional and physical needs of young children and the importance of the "self concept" for both the child and the adult working with young children, Introduction to the College's Early Childhood program covering requirements, courses and career information. A required number of observations in pre-schools, nurseries and day care centers in the area, as well as special laboratory conferences. Required of Early Childhood majors.

**2 Class Hours, 2 Laboratory Hours**

### **\*CDC 115 Music for Young Children 3 Credits**

How to develop the whole child through the use of music. This course will be of practical application for the teacher. Various techniques and methods will be demonstrated through the use of songs, records, eurhythmics, rhythm instruments and creative activities. Class participation will be a vital part of this course. Students will be expected to apply these various methods and activities with young children.

**3 Class Hours**

### **CDC 120 Curriculum Development 3 Credits**

A pre-school curriculum for students planning to work in day-care centers and nursery schools. Emphasis on how art, language, math, creative play, science and outdoor play programs are used for the physical, social, emotional and mental development of the young child. Sharing and implementing ideas through special projects and construction and implementation of material related to specified areas. Students will be required to perform certain activities in a nursery school setting or with groups of children. Required of Early Childhood majors.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** CDC 100 Introduction to Education of Young Children or Concurrent Enrollment

### **\*CDC 140 Art for Young Children 3 Credits**

In-depth coverage of art education as it contributes to the pre-school child's emotional, physical and psychological growth. Needs of pre-schoolers in this area and ways to foster creativity and skill acquisition. Materials and methods appropriate for this age. A laboratory experience working with pre-schoolers in art will be required.

**2 Class Hours, 2 Laboratory Hours**

### **\*CDC 150 Motor Development 3 Credits**

Designed to give the student an understanding of normal motor development and how it relates to cognitive and perceptual development. Students will be exposed to programs and activities in motor development for young children.

**3 Class Hours**

### **CDC 160 Nutrition for Young Children 3 Credits**

Basics of good nutrition with emphasis on children. Ideas on planning and preparing snacks and meals and teaching good nutrition habits to children. Ideas on fitting nutrition into the nursery education curriculum and tying it to other subjects. Projects for practical application and experience in a nursery school setting.

**2 Class Hours, 2 laboratory Hours**

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

### **\*CDC 170 Practicum I 3 Credits**

Designed to meet the needs of both the experienced and the inexperienced students. The inexperienced student is placed in a classroom setting conducive to the learning of desired teacher competencies, working with an experienced supervising teacher. Six hours per week for 12 weeks in this situation. Self-evaluation as well as being evaluated by others. The experienced student continues working in early childhood setting. The practicum emphasizes self-evaluation according to classroom competencies. Both experienced and inexperienced students in group seminars with a college representative and meeting for individual consultation. Required of Early Childhood Majors.

**Prerequisite:** 30 hours of counseled coursework Taught Evenings, field work days

### **CDC 175 Techniques of Observation and Evaluation 3 Credits**

Develops skills and methods of observing young children in structured and unstructured situations. Covers ethics, interpretations of children's behavior in light of development. Also record keeping techniques, projects using data gathered to evaluate children's abilities. Implications of evaluations. Required of Early Childhood Majors.

**3 Class Hours**

### **CDC 180 Child Health and Safety 3 Credits**

Designed to help students become aware of techniques for promoting general health care and safety standards at children's centers.

**3 Class Hours**

### **CDC 190 Infants, Toddlers and the Family 3 Credits**

The mother/father/baby triad and the challenges that parenting brings to the young family are examined. Single parents, parental attachment, adoption, positive self image, infant stimulation, teen pregnancy, community support for families, toddler discipline, delayed pregnancy. Gives prospective parents and teachers of young children insight into this critical period of life.

**3 Class Hours**

### **\*CDC 210 Special Problems in Children 3 Credits**

How to understand and help the child with a special problem. Normal adjustment problems, learning disabilities, physical handicaps, retardation and the emotionally disturbed child. Techniques for the classroom teacher and places to get help. Actual student involvement with children who exhibit these problems.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** PSY 211 Child Development (Concurrent Enrollment Considered)

### **\*CDC 220 Issues and Innovations in Early Childhood Education 3 Credits**

An overview and insight into various philosophies and materials of education for young children, including Montessori, Piaget, open education (comparing English and American schools), affecting education, behaviour modification. This course aims to develop the competency of the student through practical application.

**3 Class Hours**

**Prerequisite:** CDC 100 Introduction to Education of Young Children

### **\*CDC 230 Working with Parents in Early Childhood Programs 3 Credits**

Designed to introduce the need for the parent's involvement in the education of the young child. Benefits for teachers and parents which help or hinder their working together. Various aspects of working with parents, such as home visiting, group parent meetings, newsletters and written communications, parent conferences and the use of volunteers in the classroom. Part of the course on a workshop basis, and students required to develop a special project to earn their third credit.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** CDC 100 Introduction to Education of Young Children

### **\*CDC 245 Social Development of Young Children 3 Credits**

Explores the developmental, environmental and temperamental aspects of the socialization process. Topics include aggression, cooperation and sharing, moral development, peer interaction, sex-role development, communication in the classroom.

**2 Class Hours, 2 Laboratory Hours**

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**



**\*CDC 250 Language in Early Childhood 3 Credits**  
A developmental study of language growth in young children and its influence on learning (cognitive abilities, social and behavioral concepts). Contemporary language theories and programs including a diagnostic approach to teaching language (communications skills, reading readiness and literature appreciation) in the pre-school. The student will be expected to spend a number of hours in a special project requiring observation of individual children and language arts program.  
**3 Class Hours**  
**Prerequisite:** CDC 100 Introduction to Education of Young Children or Concurrent Enrollment

**\*CDC 290 Practicum II 6 Credits**  
Designed to be flexible depending upon the needs and interest of the student. Approved projects for experienced students based on the development of these needs and interests. All students meet in group seminars for exchange of ideas. Inexperienced students use classroom situations to conduct self-evaluations of own competencies as teachers, and are evaluated by others, including an experienced supervising teacher. The inexperienced student to spend nine hours per week in a classroom situation for 12 weeks. Required of Early Childhood majors. Students employed in early childhood setting continue at place of employment and are required to observe other centers.  
**Prerequisite:** CDC 170 Practicum I  
**Taught evenings, field work days**  
**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

**\*CDC 299 Independent Study in Child Care 1-3 Credits**  
An individual student project in child care beyond the scope of requirements offered by the department. Under the direction of a faculty member and approved by the program coordinator and department chairman. No more than three credits may be acquired toward the Early Childhood degree in independent study projects.  
**1-3 Class Hours**  
**Prerequisite:** 6 Semester hours in Early Childhood courses

**ECONOMICS**

**ECO 101 Consumer Economics 3 Credits**  
Institutions and forces directly affecting the consumer, consumer income and expenditure patterns, personal finance, credit and tax problems, personal investment alternatives. Impact of the consumer movement on the individual and society.  
**3 Class Hours**

**ECO 104 Labor Economics and American Industry 3 Credits**  
Interaction among business, labor and government. Analysis of the causes of unemployment and income inequality. Connection among productivity, wages, prices and employment and application of anti-trust and labor laws to firms and unions.  
**3 Class Hours**

**ECO 110 Introduction to Micro-Economics 3 Credits**  
Supply, demand and the market system as they relate to contemporary economic problems including poverty, energy, the environment and urban decay. The allocation of resources under conditions of competition and various degrees of monopoly. Rationale behind anti-trust laws and other economic systems.  
**3 Class Hours**

**ECO 111 Introduction to Macro-Economics 3 Credits**  
Causes of unemployment and inflation and the government's efforts to control them. Problems of economic growth as they relate to our economy and the other countries, developed and underdeveloped. International trade and finance problems.  
**3 Class Hours**

**ECO 140 Economics of Urban Problems 3 Credits**  
Application of economic analysis to urban problems, an understanding of the economic forces that affect housing, transportation, poverty, crime, land use, the financing of urban services and the urban future.  
(Not offered in 1988-89)  
**3 Class Hours**

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

**ECO 253 Money and Banking 3 Credits**  
An examination of money, credit and financial institutions, emphasizing how the monetary system influences economic activity. Nature and functions of money, the commercial banking system and other financial institutions, the roles of the Federal Reserve System and the Treasury, monetary policy and international money problems.  
**3 Class Hours**  
**Prerequisite:** ECO 111 Introduction to Macro-Economics

**ECO 299 Independent Study - Economics 1-3 Credits**  
An individual student project in economics which is beyond the scope or requirements of the courses offered by the department, conducted under the direction of a faculty member and approved by the department chairperson.  
**Prerequisite:** 3 Semester hours in economic

**ELECTRICAL ENGINEERING TECHNOLOGY**

**EET 100 Introduction to Electrical Engineering Technology ½ Credit**  
Introduction to Electrical Engineering Technology, career opportunities, transfer opportunities, study skills and college services. An association with industry is established through field trips and panel discussions involving industry representatives. Reasonable proficiency in the use of hand held calculator is developed. A scientific hand held calculator is required for this course.  
**1 Class Hour**

**EET 110 Introduction to Electricity 3 credits**  
Basic electrical circuit elements including voltage sources, light bulbs, resistors, heater elements, capacitors, and inductors. Simple series and parallel resistive circuits. Time constants related to capacitors and inductors. Use of basic meters to measure voltage, current, and resistance. An introduction to the oscilloscope. Reading charts and tables. Use of computers and the BASIC language to solve simple circuit problems.  
**3 class hours**

**†EET 111 Electrical Construction Laboratory I 2 Credits**  
Advanced knowledge about today's electrical equipment. Experience in the installation, fabrication and maintenance of electrical equipment by means of "hands on" approach. Shop safety and the National Electrical Code. Basic residential and commercial wiring procedures, basic measuring techniques, fundamentals of basic machine operations. Safety Glasses are required for this course.  
**1 Class Hour, 3 Laboratory Hours**

**EET 112 Electrical Construction Laboratory II 1 Credit**  
Advanced wiring methods, fractional horsepower motor and appliance troubleshooting, introduction to residential and commercial lighting and power lay-out design. Safety glasses are required for this course.  
**3 Laboratory Hours**  
**Prerequisite:** EET 111 Electrical Construction Laboratory I

**†EET 121 Electrical Circuits & Laboratory 4,1 Credits**  
Fundamentals of electrical circuits and application of circuit laws, theorems and measuring techniques to both d-c and a-c single and polyphase circuits.  
**4 Class Hours, 3 Laboratory Hours**  
**Prerequisite or Corequisite:** MAT 139 and MAT 140 or equivalent.

**\*†EET 125 Circuits I 3 Credits**  
D-c circuits, including loop and nodal analysis, superposition, Thevenin's and Norton's theorems, RL and RC time constants.  
**2 Class Hours, 2 Laboratory Hours**  
**Prerequisite or Corequisite:** MAT 139 Algebra or equivalent

**\*†EET 126 Circuits II 3 Credits**  
A continuation of the study of circuits concepts related to single and three-phase alternating current. Resonance, network analysis, power.  
**2 Class Hours, 2 Laboratory Hours**  
**Prerequisite or Corequisite:** MAT 140 Trigonometry or equivalent and EET 125 Circuits I.

**\*TAUGHT EVENINGS AND ONLY WHEN ENROLLMENT PERMITS**  
**†These courses carry separate grades for lecture and laboratory**  
**†Combined lecture-laboratory courses; final grade depends on successful completion of both parts.**

**EET 130 Engineering Drawing****1 Credit**

Principles of projection. Development of drafting skills, lettering and proper line construction. Dimensioning and tolerancing, with an emphasis on shop processes. Use of auxiliary views and sectioning. Preparation for assembly drawings, materials lists, schematic and wiring diagrams.

**3 Laboratory Hours****† EET 150 Electronic Devices & Laboratory****4,1 Credits**

A first course in Electronics introducing the devices fundamental to the field. Introduction of semiconductor diodes, bipolar and field effect transistors, thyristors, operational amplifiers, microprocessors. Design and analyze representative circuits based on these building blocks. Competency in FORTRAN IV computer language is required and is applied to generate software for design and analysis of related circuits.

**4 Class Hours, 3 Laboratory Hours**

**Prerequisite:** MAT 161 Pre-calculus and CST 141 FORTRAN Programming with Graphic Applications and EET 121 Electrical Circuits

**EET 162 Computer Aided Network Analysis****3 Credits**

Computer analysis of complex electrical and electronic networks by application of network theorems and application of software as needed. Use of a second computer language to display the response of two port networks. Use of the computer to apply matrix methods to the analysis of complex circuits and the solution of network problems.

**3 Class Hours**

**Prerequisite:** CST 141 FORTRAN Programming with Graphic Applications and EET 121 Electrical Circuits and MAT 161 Pre-calculus

**‡EET 181 Installation and Maintenance of Electrical Motors****2 Credits**

Theory, operation and application of electrical machines and control systems as related to industry. Installation, maintenance and trouble-shooting of electrical motors and control systems emphasized.

**1 Class Hour, 2 Laboratory Hours****‡EET 183 Applied Electricity****3 Credits**

Practical applications of electrical concepts as applied to basic circuits, motors and transducers. Laboratory work includes demonstration of basic electrical concepts using measuring instruments such as digital multimeters, oscilloscopes, function generators, counters, wattmeters, bridges and transducers as sensors.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** PHY 142 Physics and MAT 161 Pre-calculus

**‡EET 186 Electronics****3 Credits**

Practical applications of electronic concepts as applied to solid state devices, amplifiers, power supplies, oscillators, timers, multivibrators and basic logic devices and transducers. Laboratory work includes practical applications of concepts by students, operation of common electronic instruments such as oscilloscope, curve tracer, function generator and counter.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** EET 183 Applied Electricity

**EET 230 Electronic Design and Fabrication****1 Credit**

Selection, package design and construction of an electronic project and preparation of related drawings. Use of various manufacturing processes to fabricate the project. Use of industrial standard drafting practices to properly describe the operations. Chassis layout, printed circuit board design, exposure, and machining, wiring, soldering and enclosure fabrication are required.

**3 laboratory Hours**

**Prerequisite:** EET 112 Electrical Construction Laboratory II and EET 130 Engineering Drawing and EET 251 Electronic Circuitry & Laboratory

**\*‡EET 235 Electrical and Electronics Drawing****2 Credits**

Graphic representation of circuitry related to the electrical and electronics fields. Use of industrial standards and symbolism to draw electronic, schematic and wiring diagrams, printed circuit layout and electronics assemblies. Construction of one-line power distribution diagrams, industrial motor control diagrams and commercial lighting layout.

**1 Class Hour, 2 Laboratory Hours**

**Prerequisite:** MET 113 Engineering Drawing and EET 225 Electronics I

**\*TAUGHT EVENINGS AND ONLY WHEN ENROLLMENT PERMITS**

†These courses carry separate grades for lecture and laboratory

‡Combined lecture-laboratory courses; final grade depends on successful completion of both parts.

**†EET 243 Energy Conversions & Laboratory****4,1 Credits**

Theory, operation and application of d-c and a-c motors and generators, and their magnetic and solid state control. Theory and application of single and polyphase power transformers and rectifiers.

**4 Class Hours, 3 Laboratory Hours**

**Prerequisite:** EET 150 Electronic Devices

**†EET 244 Control Systems & Laboratory****3,1 Credits**

Theory, operation and application of a-c and d-c servo systems, industrial robots and process control techniques. Theory of open and closed loop systems.

**3 Class Hours, 3 Laboratory Hours**

**Prerequisite:** EET 243 Energy Conversions and Laboratory

**\*‡EET 245 Energy Conversions and Control Systems****4 Credits**

D-c and a-c electrical machines theory, applications, and control. Single phase and polyphase power transformers and rectifiers. Application of industrial control systems.

**3 Class Hours, 2 Laboratory Hours**

**Prerequisite:** EET 126 Circuits II

**†EET 251 Electronic Circuitry & Laboratory****3,1 Credits**

A second course in Electronics that incorporates the devices introduced in EET 150 Electronic Devices into representative circuits of moderate complexity. These include multi-stage tuned amplifiers, instrument and transducer amplifiers, op-amp active filters and other related data acquisition circuits. Practical considerations including heat sinking, noise, electromagnetic interference, and appropriate device selection. The BASIC and FORTRAN IV computer languages are required for applications software used to design and analyze multi-stage and active filter circuits.

**3 Class Hours, 3 Laboratory Hours**

**Prerequisite:** EET 150 Electronic Devices

**†EET 252 Electronic Systems & Laboratory****3,1 Credits**

A third course in Electronics that uses the circuit concepts used in EET 251 Electronic Circuitry to develop larger systems currently used in the electronics field. These include transducers, interface and data acquisition systems, switchmode power supplies, telecommunications, phase locked loops, television and communication systems. Emphasis on interface between the analog and digital world. Computer used throughout the semester to aid in design and debug of systems.

**3 Class Hours, 3 Laboratory Hours**

**Prerequisite:** EET 251 Electronic Circuitry

**\*‡EET 255 Electronics I****4 Credits**

A first course in Electronics introducing the devices fundamental to the field. Introduction of semiconductor diodes, bipolar and field effect transistors, thyristors, op-amps. Design and analyze representation circuit based on these building blocks.

**3 Class Hours, 2 Laboratory Hours**

**Prerequisite:** EET 126 Circuits II

**\*‡EET 256 Electronics II****4 Credits**

A second course in Electronics that incorporates the devices introduced in EET 255 Electronics I into representative circuits of moderate complexity. These include multi-stage tuned amplifiers, op-amp active filters, and other related data acquisition circuits. Practical considerations including heat sinking, noise, electromagnetic interference, and appropriate device selection.

**3 Class Hours, 2 Laboratory Hours**

**Prerequisite:** EET 255 Electronics I and CST 122 Scientific Computer Programming - FORTRAN

**\*‡EET 257 Electronics III****4 Credits**

A third course in Electronics that uses the circuit concepts used in EET 256 Electronics II to develop larger systems currently used in the electronics field. These include switchmode power supplies, phase locked loops, communication systems, and interfacing systems. Computer used to aid in design and debug of systems.

**3 Class Hours, 2 Laboratory Hours**

**Prerequisite:** EET 256 Electronics II

**\*TAUGHT EVENINGS AND ONLY WHEN ENROLLMENT PERMITS**

†These courses carry separate grades for lecture and laboratory

‡Combined lecture-laboratory courses; final grade depends on successful completion of both parts.



### **†EET 267 Digital Electronics and Microprocessors I & Laboratory 3,1 Credits**

Study of number systems, logic gates (TTL/CMOS), counters, shift registers, codes, types of memories, Boolean algebra, reduction theorems, and black box design applied to data transmission, computer arithmetic, and microprocessor operations. Microprocessor (8080, 8085 and Z80) assembly language programming using assemblers, disassemblers, monitors, loaders, logic analyzers and other tools related to industrial applications of microcomputers. Internal operation of a computer from a block diagram approach. Applications include software scrolling, IC testing, traffic controllers, display systems, and math operations. Appropriate laboratory exercises provide hands-on experience in three areas - digital circuitry, microprocessor assembly language, and microprocessor interface hardware.

**3 Class Hours, 2 Laboratory Hours**

**Prerequisite:** EET 150 Electronic Devices or EET 255 Electronics I and CST 122 Scientific Computer Programming - FORTRAN or CST 141 FORTRAN Programming with Graphic Applications

### **\*†EET 268 Digital Electronics and Microprocessors II & Laboratory 4 Credits**

Use of modern microprocessors (Z80, 8086 and 68000) in real time control applications such as testing complex circuitry using microcomputers, display systems, speech synthesis, EPROM and EEPROM programming, ultrasonic techniques, data manipulation, multiplexing, video games, satellite receivers, encryption techniques, disk controllers, array processors, and other modern topics in the microcomputer world. Use of development systems (UNIX based), logic analyzers, and high level languages. Students undertake a project related to the field and study the differences between eight other popular microprocessors. Assembly language skills learned in EET 267 Digital Electronics and Microprocessors I are tuned and further software development takes place.

**3 Class Hours, 2 Laboratory Hours**

**Prerequisite:** EET 267 Digital Electronics and Microprocessors I and instructor approval

### **EET 299 Independent Study 2-4 Credits**

The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving a job-related assignment. Any independent study project is based on instructor availability.

**Prerequisite:** Department Approval

## **ENGINEERING**

### **EGR 100, 200 Orientation 0 Credits**

Attendance at these sessions assures the Engineering Science student a smooth transition into and out of Broome Community College. Guest speakers discuss common problems engineering students encounter. Representatives from transfer schools introduce their respective institutions to students. Common exams will be scheduling during these sessions.

**2 Class Hours**

### **EGR 150 Engineering Graphics 2 Credits**

Fundamental course in drawing techniques and computer graphics, graphing, orthographic projections, dimensioning, true length, true size, relationships between lines and planes. BASIC programming is used to solve engineering applications in nomography, statistics, least squares regression and correlation coefficient. Computer file manipulation, word processing and spreadsheets are also covered. For Engineering Science Students.

**1 Class Hour, 2 Laboratory Hours**

**Corequisite:** EGR 100 Orientation

### **EGR 151 Applications in Engineering 3 Credits**

Applications of computers to the solution of Engineering problems. FORTRAN on small systems and a mainframe, and commercial integrated programs will be used to solve problems involving curve fitting, zeros of functions. Monte Carlo method, infinite series, Gaussian elimination, chi-square statistics, electrical circuits, finite nodal analysis, engineering economics, and student T distributions. Computer Aided Drafting software will be used to produce 2-dimensional and 3-dimensional drawings.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** EGR 150 Engineering Graphics

**Corequisite:** EGR 100 Orientation

### **\*TAUGHT EVENINGS AND ONLY WHEN ENROLLMENT PERMITS**

†These courses carry separate grades for lecture and laboratory  
‡Combined lecture-laboratory courses; final grade depends on successful completion of both parts.

### **EGR 281 Mechanics (Statics) 3 Credits**

Fundamental concepts of the statics of rigid bodies developed by using a vector analysis approach. Force systems, centroids and centers of gravity, analysis of structures, shear and bending moments, friction and moments of inertia.

**3 Class Hours**

**Prerequisite:** 1 year of Calculus and PHY 181 Physics I

**Corequisite:** EGR 200 Orientation

### **EGR 282 Mechanics (Dynamics) 3 Credits**

Concepts using vector analysis approach to kinematics and kinetics of particles, systems of particles, kinematics and kinetics of rigid bodies. Forces, mass, acceleration, impulse, momentum, work and energy techniques, inertial tensor.

**3 Class Hours**

**Prerequisite:** EGR 281 Mechanics (Statics)

**Corequisite:** EGR 200 Orientation

### **EGR 283 Strength of Materials 3 Credits**

Topics to be covered are Normal, Shear and Bending Stress, Normal and Shear Strain, Stress-Strain Diagram. Torsion, Stress and Deformations in Pure Bending, Shear Stress in Transverse Loading, Mohr's Circle for Plane Stress, Design of Beams for strength, Deflection of Beams, Energy Methods, Columns.

**3 Class Hours**

**Prerequisite:** EGR 281 Mechanics (Statics)

**Corequisite:** EGR 200 Orientation

### **EGR 284 Materials Science 3 Credits**

Atomic model, bonding, lattice concept, crystal types, imperfections, stress and temperature effects, phase diagrams, alloys, ceramics, glass, concrete, polymers, corrosion.

**3 Class Hours**

**Prerequisite:** PHY 182 Engineering Physics II and CHM 146 Chemistry

**Corequisite:** EGR 200 Orientation

### **EGR 285 Electrical and Electronic Circuits 3 Credits**

Kirchoff's Laws, energy and power. Resistance, inductance and capacitance parameters. Series and parallel circuit's, superposition theorem, network analysis by mesh currents., nodal techniques, Thevenin's Theorem. Techniques for solving step response, pulse response, forced response, natural response and complete response. A-c circuits, phasors, impedance, resonance. Operational amplifiers and feedback.

**3 Class Hours**

**Prerequisite:** 1 year of calculus and PHY 182 Engineering Physics II

**Corequisite:** EGR 200 Orientation

### **EGR 287 Engineering Science Laboratory I 1 Credit**

Experimentation in electrical and electronic circuits, heat, light, atomic and nuclear physics.

**3 Laboratory Hours**

**Prerequisite:** 1 year of calculus and PHY 182 Engineering Physics II

**Corequisite:** EGR 285 Electrical and Electronic Circuits and PHY 281 Engineering Physics III

### **EGR 288 Engineering Science Laboratory II 1 Credit**

Experimentation in digital logic and microprocessors, software and hardware interfacing.

**3 Laboratory Hours**

**Prerequisite:** EGR 287 Engineering Science Laboratory I

**Corequisite:** EGR 286 Engineering Analysis

### **EGR 288 Microprocessor Laboratory I 1 Credit**

Experimentation in digital logic and microprocessors, software and hardware interfacing.

**3 Laboratory Hours**

**Prerequisite:** EGR 287 Engineering Science Laboratory I

**Corequisite:** EGR 289 Introduction to Microprocessors

### **EGR 289 Introduction to Microprocessors 2 Credits**

Experimentation in digital logic and microprocessors, software and hardware interfacing. Emphasis on 6800, 8088, and 68000 series.

**2 Laboratory Hours**

**Prerequisite:** EGR 287 Engineering Lab I and EGR 285 Electrical Circuits

**Corequisite:** EGR 288 Microprocessor Laboratory and EGR 200 Orientation

### **EGR 299 Independent Project 2-4 Credits**

The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving work assignment.

**Prerequisite:** Department Approval

# ENGLISH

After completing a writing sample, students with serious deficiencies will be required to enroll in ENG 090 Basic Language Skills or ENG 110S Written Expression I. Students generally begin a composition sequence with ENG 110 Written Expression I.

**ENG 090 Basic Language Skills 0 Credits**  
Writing workshops designed to improve a student's mastery of composition skills, including patterns of sentence structure and the recognition and correction of common errors in grammar and usage. (This course not applicable toward any degree.)  
**Minimum 4 Class Hours**

**ENG 106, 107, 108 English as a Second Language**  
See Page 101.

**ENG 110 Written Expression 3 Credits**  
Study and practice in the composition of ideas and information. Sentence and paragraph development, unity, coherence, style. Nature of language, including investigation of various aspects of communication to stimulate critical thinking.  
**3 Class Hours**  
**Prerequisite:** Placement test or ENG 090 Basic Language Skills

**ENG 110S Written Expression 3 Credits**  
Same as ENG 110 Written Expression I with one additional hour of supplemental help.  
**4 Class Hours**

**ENG 110T Written Expression - Technical 4 Credits**  
Study and practice in the composition of ideas and information in both a technical and non-technical environment. Sentence and paragraph development, unity, coherence, style, appropriate developmental strategies, appropriate formatting. Investigation of various aspects of both oral and written communication to stimulate critical thinking. For students in Engineering Technology Curricula.  
**4 Class hours**

**ENG 160 Expository Writing 3 Credits**  
An intensive course in expository, persuasive and critical writing for students who have already mastered the basic skills of written expression. Emphasis in critical reading of professional essayists and articles.  
**3 Class Hours**  
**Prerequisite:** ENG 110 Written Expression

**ENG 163 Reporting 3 Credits**  
An introduction to the basics of News Reporting for print journalism. Student newspaper used for workshop and actual publication.

**ENG 163L Journalism Laboratory: Fulcrum 1 Credit**  
Reporting, writing and editing the Fulcrum, the campus newspaper. Designed for editors and staff members of the Fulcrum.  
**3 Laboratory Hours (May be repeated for credit)**

**ENG 168 News Editing 3 Credits**  
The basics of editing, headline writing, layout, and design for print journalism. Student publication used for hands-on experience.  
**3 Class Hours**  
**Prerequisite:** ENG 163 Reporting or ENG 110 or ENG 110S Written Expression I plus permission of instructor

**ENG 170 Creative Writing 3 Credits**  
Designed to provide students interested in imaginative writing with the opportunity to investigate concepts and to practice techniques implicit in prose, poetry and drama. Class discussion, workshops and personal conferences with the instructor.  
**3 Class Hours plus Workshop Hours**

**ENG 175 Creative Writing - Publication 4 Credits**  
Designed to provide students interested in imaginative writing with the opportunity to investigate concepts and to practice techniques implicit in prose, poetry and drama. Class discussion, workshops and personal conferences with the instructor, writing, evaluating and arranging material for a campus literary journal.  
**3 Class Hours**

**ENG 220 Communicating About Values 3 Credits**  
Critical analysis of issues and moral problems affecting all thinking adults. Selected readings organized around broad themes. Required writing assignments and oral communication. **Required of all degree students.**  
**Prerequisite:** ENG 110 Written Expression

**ENG 299 Independent Study: English 3 Credits**  
An individual student project concerned with advanced work in a specific area of language or literature. Conducted under the direction of a faculty, independent study is concerned with material beyond the scope and depth of the ordinary course.  
**Prerequisite:** One semester of college level work.

## ENGLISH-AS-A-SECOND-LANGUAGE (ESL) COURSES

International students and residents of other nations may be admitted to the College if they meet special entrance requirements (see page 29). However, admission to the College does not guarantee admission into a particular degree program. All degree programs require English Language proficiency equivalent to ENG 106 for entry. Students who do not meet this requirement but satisfy other College admission requirements for foreign students are placed into a English-as-a Second-Language program (ESL) designed to bring their language competency up to a level appropriate for success at most American colleges and universities. Placement is determined after the student arrives on campus and depends on the special language exam administered by the English Department. For students entering at the lowest level of English proficiency, the following two semester program will be necessary. Students who enter at the ESL 103 or ESL 113 level will require more than two years to complete a degree. Students entering at the ENG 106 level or lower must take English courses in all subsequent semesters or until they have passed ENG 108.

### Semester I (ESL 103 Series)

Course	Credits
ESL 103 .....	5
ESL 104 .....	4
ESL 105 .....	4
SAC 110 (see p. 100) .....	2
Elective from regular curriculum .....	3
	<hr/> 18

### Semester II (ESL 113 Series)

Course	Credits
ESL 113 .....	4
ESL 114 .....	4
ESL 115 .....	4
Electives from regular curriculum .....	3-6
	<hr/> 15-18

The College does not normally admit students who require training below the ESL 103 level. However, it is prepared to offer ESL below this level if students are admitted in groups of 10 or more. Currently, ESL 003, 004 and 005 are being offered to a group of international students. Students may combine ESL 102 with the ESL 003 series or the ESL 103 Series to make up a 25 hour intensive language program.

### ESL 003 English as a Second Language, Elementary Grammar 4 Credits

Introduction of basic English grammar, both oral and written, for non-native speakers. Curriculum will include study of basic verb tenses, noun categories, and basic affirmative, negative, and interrogative sentence patterns. The material will reinforce what is taught in ESL 004 and 005. Taken together these courses are referred to as the ESL 003 Series. (This course is not acceptable for credits toward a degree).

**4 Class Hours, 2 Laboratory Hours**  
**Prerequisite:** Diagnostic Test

### ESL 004 English as a Second Language, Elementary Oral/Aural Skills 4 Credits

A course for students who speak little or no English. The sounds of English are presented systematically and language laboratory practice is required. Ear training is begun and strengthened through work in the listening laboratory. Students are taught communicative skills from the outset, and the emphasis is on speaking and being understood. (This course is not acceptable for credit toward a degree).

**4 Class Hours, 2 Laboratory Hours**  
**Prerequisite:** Diagnostic Test

### ESL 005 English as a Second Language, Elementary Reading Skills 4 Credits

For non-natives who had little exposure to written English. Basic sentence structure and vocabulary will be studied in order to improve student's comprehension, from simplified reading texts to those of increasing complexity. Writing skills, simple sentence structures, and organizational skills are also stresses. (This course is not acceptable for credits toward a degree).

**4 Class Hours, 2 Laboratory Hours**  
**Prerequisite:** Diagnostic Test



**ESL 102 English as a Second Language,  
Basic Writing Skills 5 Credits**

Introduction to the basic rhetorical/sentence patterns of English and their usage, organizational and developmental writing skills. Focus on the expression of ideas/concepts and their presentation in simple and complex sentence form, proof reading and editing skills, Note taking, outlining and Computer assisted instruction. (This course is not acceptable for credits toward a degree).

**4 Class Hours, 3 Laboratory Hours**

**Prerequisite:** Diagnostic Test

**[Intensive English as a Second Language Program]**

*Students may combine ESL 102 with the ESL 003 series or the ESL 103 series to make up a 25 hour intensive language program]*

**ESL 103 English as a Second Language,  
Grammar Review 5 Credits**

Intensive review of pre-intermediate levels of the English language for international students. Emphasis on listening, reading, speaking and some aspects or writing. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

**4 Class Hours, 2 Laboratory Hours**

**ESL 104 English as a Second Language,  
Basic Speech 4 Credits**

To provide international students with practice, articulation and vocabulary needed to increase self-confidence in English conversation, discussion in the classroom and other daily situations. Audio-lingual laboratory. (This course is not acceptable toward a degree.)

**3 Class Hours, 2 Laboratory Hours**

**ESL 105 English as a Second Language,  
Basic Reading 4 Credits**

Review of English sound-symbol correspondence, utilization of brief recombinations of variations of narratives and dialogues, and acquisition of simple reading techniques through exposure to uncomplicated reading selections. Vocabulary and reading comprehensive development, audio-lingual practice - active, passive, comparative. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

**3 Class Hours, 2 Laboratory Hours**

**ESL 113 English as a Second Language  
Intermediate Composition 4 Credits**

Study of the English language for international students with listening, reading, speaking, writing skills on the intermediate level. Language workshops emphasizing grammar, syntax, vocabulary and composition. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

**3 Class Hours, 2 Laboratory Hours**

**Prerequisite:** ESL 103 English as a Second Language, Grammar Review or equivalent

**ESL 114 English as a Second Language,  
Intermediate Speech 4 Credits**

Designed for international students emphasizing free and controlled conversation and discussion. Continues practice in articulation, phrasing and vocabulary building. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

**3 Class Hours, 2 Laboratory Hours**

**Prerequisite:** ESL 104 English as a Second Language, Basic Speech or equivalent

**ESL 115 English as a Second Language,  
Intermediate Reading 4 Credits**

Study of lexical, grammatical, and social-cultural meaning through intensive and extensive reading. Establishment of reading fluency and independence in English. Continues development of vocabulary and reading comprehension. Direct and audio-lingual practice with selected texts and exercises. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

**3 Class Hours, 2 Laboratory Hours**

**Prerequisite:** ESL 105 English as a Second Language, Basic Speech or equivalent

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Students who enter at the ESL 103 or ESL 113 level will require more than two years to complete a degree. For degree programs requiring six credit hours of English Composition, students may use ENG 107, 108, 110, or 220 depending on their degree program requirements and their English placement scores. Students placed in any ESL course are required to take English every semester until their English program requirements are met.

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**ENG 106 English as a Second Language,  
Intermediate II 3 Credits**

Advanced study of the English language for international students. Emphasis on the development of basic English compositional skills. Continued practice in listening, reading, and speaking.

**3 Class Hours**

**Prerequisite:** ESL 113 English as a Second Language, Series or equivalent

**ENG 107 English as a Second Language,  
Advanced I 3 Credits**

Expanded study and practice in the composition of ideas and information for international students. Sentence and paragraph development, unity, coherence, style. Writing workshops for intensive practice in the formation of standard and idiomatic English. Investigation of the nature of language and various aspects of communication to stimulate critical thinking.

**3 Class Hours (Equivalent to ENG 110 for foreign students)**

**Prerequisite:** ENG 106 English as a Second Language, Intermediate II or equivalent

**ENG 108 English as a Second Language,  
Advanced II 3 Credits**

Further study and practice in critical and evaluative thinking and writing for international students, based upon analysis and exposure to prose as well as major types of imaginative literature. Additional practice and familiarization with research procedures. Writing workshops and individual conferences to guide the international student through writing assignments.

**3 Class Hours**

**Prerequisite:** ENG 107 English as a second language, Advanced I

## **FIRE PROTECTION TECHNOLOGY**

**\*FRS 101 Fire Prevention and Protection 3 Credits**

Methods, policies and procedures relative to establishing and operating appropriate fire prevention and protection programs.

**3 Class Hours**

**\*FRS 103 Fire Fighting Tactics and Strategy 3 Credits**

Focus on pre-planning and the development of fire fighting tactics appropriate or a wide variety of hazards. Review of basic information and some local conditions. The case study method is used to develop plans and tactics relating to the student's own departments.

**3 Class Hours**

**\*FRS 105 Arson Investigation 3 Credits**

Fire investigations and arson. Responsibilities of the arson investigator, tools of the investigator, photography, electronic devices, laws pertaining to arson, motives and tools of the arsonist, courtroom procedures. A field experience will be included.

**3 Class Hours**

**\*FRS 107 Legal Aspects of the Fire Service 3 Credits**

Laws and regulations as they pertain to the fire service and its personnel. Legal terminology necessary for the interpretation of pertinent laws and decisions. Legal status of the fireman, as well as fireman's rights, duties and liabilities. Responsibilities and powers of the service in enforcement of ordinances and codes.

**3 Class Hours**

**\*FRS 108 Building Construction  
for Fire Science 3 Credits**

Fire fighters are confronted with many unknown factors at the fire ground. Among these is the unknown structural stability of the buildings they must enter. Basic principles of building construction and design with emphasis focused on fire protection concerns. Building materials included.

**3 Class Hours**

**\*FRS 200 Hazardous Materials 3 Credits**

Chemicals and chemical processes most closely involved in fire protection and fire fighting. Use, storage, transportation and disposal of hazardous materials with emphasis on flammable liquids, flammable solids, oxidizing materials, corrosive liquids, compressed gases.

**3 Class Hours**

**Prerequisite:** Chemistry or department permission

**\* TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

### **\*FRS 201 Fire Service Hydraulics 3 Credits**

Application of the laws of mathematics and physics to properties of fluid states, force pressure and flow velocities. Emphasis in applying principles of hydraulics to fire-fighting problems.

**3 Class Hours**

**Prerequisite:** MAT 139 Algebra

### **\*FRS 205 Fire Department Administration 3 Credits**

Organization of the fire departments with emphasis on personnel management, distribution of equipment, maintenance of records, communications, data collection and community relations. ISO Grading Schedule.

**3 Class Hours**

### **\*FRS 250 Special Topics 1-3 Credits**

Exploration of special topics in Fire Protection Technology. May be repeated since topics will vary from semester to semester.

### **\*FRS 299 Independent Study: Fire Service 1-3 Credits**

An individual student project in an area of fire protection or service beyond the scope of regular coursework. Conducted under supervision of coordinator and approved by department chairperson.

**Prerequisite:** 6 Credits in FRS coursework and 6 Credits in General Education courses

The college offers regular classroom instruction in French, German, Italian, Russian and Spanish. In addition self-instructional language study for highly motivated and disciplined students is available in Arabic, Chinese, Greek, Hebrew, Irish-Gaelic, Japanese, Korean, Lithuanian, Polish, Russian, Swedish, and Welsh-Gaelic.

## **FRENCH**

**PLACEMENT IN LANGUAGE** - Generally one year of high school foreign language is equivalent to one semester in college. Students with two years of language in high school **should** register for intermediate level courses. **Students with three years of language in high school may not enroll in beginning courses.**

### **FRE 101, 102 Beginning French 4, 4 Credits**

Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Reading and discussion of graded literacy and cultural texts.

**4 Class Hours**

**Prerequisite:** FRE 101 Beginning French for FRE 102

### **FRE 201, 202 Intermediate French I and French II 3 Credits**

Intensive review of grammar and syntax and oral practice in classroom. Reading and discussion of works selected by the instructor.

**3 Class Hours**

**Prerequisite:** FRE 102 Beginning French for FRE 201

## **GEOGRAPHY**

### **GEO 120 World Geography 3 Credits**

Description and analysis of variations in social, cultural, economic and political phenomena in major world areas.

**3 Class hours**

## **GERMAN**

### **GER 100 Practical German: 10 Minutes a Day 2 Credits**

Practical and simplified approach to speaking and understanding German. Emphasis on important and necessary aspects of everyday communication. Vocabulary and pronunciation acquisition through use of instructor's expertise, flash cards, stickers, illustration, and sign recognition. (Does not satisfy language requirement.)

**2 Class Hours**

### **\*TAUGHT EVENINGS AND ONLY WHEN ENROLLMENT PERMITS**

### **GER 101, 102 Beginning German 4, 4 Credits**

Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Written homework assignments supplemented by work in audio-lingual laboratory. Reading and discussion of graded literary and cultural texts.

**4 Class Hours**

**Prerequisite:** GER 101 Beginning German for GER 102

### **GER 201 German Conversation and Composition 3 Credits**

Emphasis on the four language skills - reading, writing, speaking, listening - especially on speaking and writing. Intensive discussion of style, grammar and the contemporary idiom to enhance the student's ability to express himself in German.

**3 Class Hours, 1 Laboratory Hour**

**Prerequisite:** GER 102 Beginning German

### **GER 202 Introduction to German Literary Analysis 3 Credits**

Reading and analytical discussion of original texts of standard authors from early writings through the 20th century with cultural historical implications. Essays and reports on reading in German.

**3 Class Hours**

**Prerequisite:** GER 102 Beginning German

## **HEALTH SCIENCES**

### **HSV 101 Cardiopulmonary Resuscitation ½ Credits**

Procedures necessary in administering CPR in emergency situations. American Heart Association method of teaching with certification. Performance of mastery level by demonstration and exam. For Health Science students. Will be given in 2-hour sessions to make a total of 8 hours.

## **HISTORY**

*HIS 115 Modern Global History is a core course required of all Liberal Arts students. Ordinarily it is a prerequisite for other history (HIS) courses. However, even where it is not a prerequisite, students are urged to complete this course before enrolling in any other history course.*

### **HIS 100 The Rise of The West 3 Credits**

Introduction to both the study of history and the evolution of modern society, including its basic ideas, values and institutions, through an examination of Western Civilization. The Age of Transition - the Renaissance, the Reformation, the Scientific Revolution, and the Enlightenment. The Industrial Transformation, appearance of modern constitutional and authoritarian government, major socio-political ideologies - liberalism, socialism, communism, nationalism, imperialism, fascism, totalitarianism. The intellectual crisis of the 20th Century, World Wars I and II.

**3 Class Hours**

### **HIS 101-H Making of the Modern World I 3 Credits**

The evolution of modern society, from the Renaissance to the end of the nineteenth century. Introduction to the nature and study of history. Emergence of Western Civilization-Renaissance, Reformation, scientific, technological, economic, and social revolutions. Age of power-absolutism, parliamentary government, the Enlightenment. Age of Revolution - American and French Revolutions, industrialization, modern political ideas, romantic and modern culture. Global Civilization - great discoveries, colonial empires modern imperialism. (For Honor Students)

**3 Class Hours**

### **HIS 102-H Making of the Modern World II 3 Credits**

A survey of the world in the 20th century, stressing the historical roots of contemporary societies. Origins and consequences of the First World War, the Russian Revolution and development of the USSR under Lenin and Stalin. Europe and the U.S. between the wars. Revolutions in science, views of man and society, art, music, and literature. Development and institutionalizing of fascism, origins and consequences of World War II. Impact on colonial empires in Asia and Africa, independence movements and revolutions. The contemporary scene. (For Honor Students)

**3 Class Hours**

### **HIS 115 Modern Global History: The World in Transition 3 Credits**

Historical Development of Western Civilization in the 19th-20th centuries, contrasted with selected non-Western societies. The key theme—the effects of modernity—is examined in several aspects: the regional nature of geography and demography; the important influences of traditional values and religious beliefs in the areas selected for study; the evolution of capitalism, socialism and communism, and nationalism and how these concepts affected less developed countries; the impact of industrialization, colonialism, technology and science on the peoples of the contemporary world.

**3 Class Hours**



## CIVILIZATION SURVEYS (HIS 130-161)

Liberal Arts students may select any one of the following courses to satisfy the remainder of the history requirement.

### HIS 130 United States History I 3 Credits

The United States from 1607 to 1898. The colonies, Revolution, Constitution, early national period, Age of Jackson, expansion, Civil War and Reconstruction, the West and the Gilded Age. Survey of political, economic, cultural developments through the 19th Century.

3 Class Hours

### HIS 131 United States History II 3 Credits

The United States from 1898 to the present. The American Empire, progressive reforms, World War I, the Twenties, Depression, New Deal, World War II and the Cold War, post-domestic issues.

3 Class Hours

### HIS 140 History of Latin America 3 Credits

History of Latin America from the Age of Discovery and Conquest through the 19th Century (1492 to 1890). Indian Cultures of Central and South America (Aztec, Inca, Maya), spanish conquistadors (Cortes, Pizarro), Portuguese adventurers, imposition of European rule, Independence Wars, national identities, rise of the masses. Story of economic oppression, political authoritarianism, cultural vitality. (Not offered in 1988-89)

3 Class Hours

### HIS 141 History of Latin America II 3 Credits

History of Latin America from the 1890's to the present, emphasizing the causes of political instability and economic backwardness. Close analyses of reform, reactionary and revolutionary movements in modern Latin America and of inter-American affairs.

3 Class Hours

## SPECIAL TOPICS IN HISTORY (HIS 170-199)

### HIS 170 The Future as History: A Look at the 21st Century United States 3 Credits

Does the future have to be a shock? The objective of this course is to prove it does not have to be. Three or four possible courses which the next 100 years may take will be plotted, using knowledge of the economic, political and social developments of the past 100 years of U.S. history and a basic understanding of the present day situation.

3 Class Hours

**Prerequisite:** HIS 130 United States History I or HIS 131 United States History II or POS 201 Introduction to American government.

### HIS 175 Local History 3 Credits

The early history of our local area including the late 18th Century Indian communities and the growth of 19th Century white settlements through development of industries and institutions from the days of the frontiersmen to the era of the railroaders and the factory hands. Historical methods of research. An historical walking tour of Binghamton, investigation of historical records on the premises of cooperative local institutions, and observation of contributions to local history.

3 Class Hours

### HIS 180 Utopia: Visions of the Good Society 3 Credits

Examines the functions of the Utopian Impulse throughout modern history as a series of "thought experiments" which address the question "what constitutes the Good Society?" Includes a comparative analysis of various representative utopias such as those of T. More, E. Ballamy, W. Morris, C.P. Gilman, H.G. Wells, B.F. Skinner, etc. Consideration will also be given to several representative anti-utopias/dystopias such as those of A.X. Huxley, G. Orwell, etc.

3 Class Hours

### HIS 183 Herstory: Woman as a Historical Force 3 Credits

A look at various ideologies about women compared to reality; varying attitudes toward women and where they originated; resulting roles assigned and contribution made by women in western civilization, with emphasis on the United States.

3 Class Hours

### HIS 185 Hitler and The Nazi Dictatorship 3 Credits

Origins of National Socialism, role of Adolf Hitler, road to Nazi Dictatorship, Nazi political and social revolutions. Hitler's foreign policy and Europe's reaction, World War II and Hitler's "New Order," Nazi system of persecution and genocide, collapse of the 1,000-year Reich, legacy of the Hitler period.

3 Class Hours

### HIS 186 Modern American Social History 3 Credits

Historical currents of social change and reform in the 20th Century. Reformist themes bearing on health, welfare, labor, women's suffrage, civil rights movement, and recent challenges to traditional American family structures and values, against the backdrop of hostile and supportive private groups. Creation of public institutions to meet human needs, such as Social Security. Response of the courts to organized reformist pressures. Contemporary trends.

3 Class Hours

### HIS 190 The World Since 1945 3 Credits

An overview of the changing patterns in world affairs since the end of World War II. Emergence of the Third World War, The Cold War, responses to scientific/technological change, insurgent movements attempts at world organization/disarmament, the energy/ecology crisis, the various trouble spots like the Middle East, Panama Canal, Berlin, Asia. (Not offered in 1988-89)

3 Class Hours

**Prerequisite:** HIS 100 The Rise of the West or HIS 131 United States History II or HIS 115 Modern Global History

### Short Modules (HIS 200-295)

The department offers special short modules of courses that carry one credit each. These deal with concentrated topics in history and are less than one semester in length.

### HIS 299 Independent Study 1-3 Credits

An independent student project which is beyond the scope of courses currently offered by the department, directed by a faculty member with approval of the department chairperson. Independent study does not satisfy the Liberal Arts requirement in history, and it may not be taken in lieu of a 100-series course.

**Prerequisite:** HIS 100 The Rise of the West or HIS 115 Modern Global History

## HOTEL TECHNOLOGY

TAE Courses also found under Travel and Entertainment

### TAE 101 Principles and Practice of Food Service I 3 Credits

This course is a lecture/laboratory course which covers food theory and laboratory work. It is an introduction to basic food preparation, basic baking, food service sanitation, personnel organization, kitchen etiquette and supervision. The student also receives instruction in production and preparation techniques in a variety of typical food service operations.

1 Class Hour, 6 Laboratory Hours

### TAE 103 Front Office Management 3 Credits

A study of the structure of the front office operation as it relates to the hotel/restaurant organization: guest service, reservation and rooming procedures, rate structures, cashiering, billing and night audit principles.

3 Class Hours

### TAE 105 Front of the House Management 3 Credits

A study of the management network of the Front of the House as it relates to guest relations, staffing, reservations and the Back of the House personnel. Also covered will be the major types of Table Service, Dining Room Etiquette, Mixology, Wine Tasting and a study of the Wine Regions.

3 Class Hours

### TAE 206 Housekeeping and Property Management 3 Credits

This course is a study of the chain of command in a Hotel and/or a Restaurant facility. The function and responsibilities of each position in the organizational structure and their importance to successful management. The topics include maintenance, care and control of furnishings, safety, fire prevention, CPR training, sanitation principles, and proper training of personnel.

3 Class Hours

### TAE 207 Hospitality Principles 3 Credits

The course is a study of growth and development of the future of the Hotel/Restaurant Hospitality Industry and the potential for employment in the various segments of the Industry. This course will provide an orientation to future managers on how to be problem solvers by studying the current trends and conditions and relating them to future decisions.

3 Class Hours

**TAE 208 Hotel and Restaurant Law 3 Credits**

A study of the laws affecting hotel and restaurant operations. Topics include: common law of innkeeping, food and beverage regulations, liabilities for safety and security of guests and others and their property.

3 Class Hours

**TAE 212 Hotel/Motel Marketing & Advertising 3 Credits**

Covers the application of marketing as it relates to site location, customer demand, image creations, advertising and displays, direct mailing and newspaper releases. Also covered is the importance of operational needs, internal and external promotions.

3 Class Hours

**TAE 242 Sales Promotion and Convention Service 3 Credits**

This course will present the basic principles and procedures of Hotel and Restaurant Sales as it relates to the convention and group business industry. The following areas will be addressed: facilities, customers, services, competition, sales presentations, advertising methods, staffing and location.

3 Class Hours

**TAE 256 Banquets and Catering 3 Credits**

The course is a laboratory/lecture course in which teams of students will be given practice, under supervision, in planning, ordering, and executing complete menus for various functions. This course includes various styles of Off-Premise and On-Premise catering, Accommodator Service and Kosher Catering. Special attention will be given to "Garde Manger" work.

1 Class Hour, 6 Laboratory Hours

**TAE 265 Food, Beverage, and Labor Costs 3 Credits**

A study of the principles of cost controls essential to an effective hotel and restaurant operation through an application of food, beverage and labor control procedures as they apply to menu management.

3 Class Hours

**TAE 298 Restaurant Internship I/II 3 Credits**

Career-related employment in the area restaurants for the student completing the degree in Restaurant Management. The intern will experience the opportunity to apply the theory learned in the program within the setting of restaurants.

**TAE 298 Hotel Internship 3 Credits**

Career related job experience in area hotels for students in the Hotel Management program. The intern will experience the opportunity to apply the theory learned in the classroom within the hotel setting.

## HUMAN DEVELOPMENT COURSES

*Across the nation students have indicated that they want the opportunity in college to identify, pursue and accomplish personal goals, to develop healthier self-concepts, to develop more effective levels of self-understanding and to become open human beings who can build trusting relationships with others. The student affairs course can be one means of facilitating humanistic objectives being espoused by "new" college students.*

**SAC 101 The Individual in a Changing Environment 3 Credits**

Individual interaction and reading designed to foster understanding and application of psychological and emotional growth within the many environments we are part of. Basic class material is the individual and group analysis of student's experience within an immediate unstructured setting. Focus on analysis and organization of experience into a personally rewarding conception of growth. Individual self-development projects outside the class.

3 Class Hours

**SAC 110 Orientation for International Students 2 Credits**

An orientation course for international students designed to aid in their adjustment as students at Broome Community College. Study skills, academic regulations, the American educational system, individual educational and vocational goals, American customs. Especially intended for students during their initial semester of enrollment in conjunction with English-as-a-Second-Language course offerings, such as ESL 103, 104, 105. (This course is not acceptable for credits toward a degree.)

2 Class Hours

**SAC 250 Career Exploration 3 Credits**

How to plan, establish, change a career. The process of deciding on a career and implementing career goals, assessment of values, interests and skills plus their relationship to occupations. Analysis of the labor market needs, identification of employers and sources of occupation information, the means of securing employment through proposals, resumes, applications and job interviews. Supportive small group atmosphere. Class activities include discussion, speakers, testing, and individual counseling within career development theory.

3 Class Hours

**SAC 251 Career Search 1 Credit**

For people who know their interests, skills, and values but are not sure which career field or life styles would be most satisfying to them. Sources of occupational information, analysis of labor market needs, what colleges and college majors best prepare students for their career goals. For students who are beginning a career, changing careers, or returning to the job market. For students who scored 13-18 on My Vocational Situation. Supportive small group atmosphere. Discussion sessions, speakers, testing field work, and individual counseling.

2 Seminar Hours

**SAC 295 Seminar in Human Potential 3 Credits**

Human potential seminar centers on the person within a positive group setting while working on and with the potential of all involved. It assists persons in achieving the following: becoming more self-direct, self-motivating, self-aware, self-controlled, self-disciplined and empathetic towards others. The focus is on the person's own resources by utilizing specific and structured procedures.

3 Class Hours

## INTERIOR DESIGN

**INT 101 History of Architecture - Exterior and Interior 3 Credits**

Survey of exterior and interior architectural styles from Ancient Egyptian through 20th Century

3 Class Hours

**INT 105 Basic Drawing for Interior Design 3 Credits**

A course to provide design students drafting skills needed in the design of interiors.

1 Class Hour, 4 Laboratory Hours

**INT 110 Interior Design I 4 Credits**

The studio interior design course requires the student to become well acquainted with the impact of the designed physical environment on individuals. Practical, aesthetic and psychological aspects of the built environment are addressed. Skills including conceptualizing in three dimensions, drawing in scale and presentation techniques both graphic and oral are developed. Contemporary aspects of design practice and America's influential architects, designers, journalists, and manufacturers will be investigated. Basic design elements will be applied to building design with emphasis on the interior and the relationship of the built environment to the natural.

2 Class Hours, 4 Studio Hours

Prerequisite: Introduction to Design

Recommended: INT 105 Basic Drawing for Interior Design and ART 101 History of Western Art

**INT 111 Interior Design II 4 Credits**

To build and develop further the techniques acquired in Interior Design 110. Emphasis will be placed on conceptual analysis of space, aesthetic and functional. The student will be expected to work with the interior environment as a place that nurtures and sustains the human spirit. Sensitivity to the existing architecture of the building as well as awareness of the activities that must be accommodated will be essential in order to develop a workable and convincing solution to each project, residential and commercial.

2 Class Hours, 4 Studio Hours.

Prerequisite: INT 110 Interior Design I

**INT 122 Professional Practice 3 Credits**

Study of processes, manufacture and installation of interior design products. Techniques used in writing specifications for interior design projects.

2 Class Hours, 2 Laboratory Hours



**INT 140 Fabric Analysis** **2 Credits**  
History of textile forms and use, weaving techniques, pre-industrial and industrial as well as fiber properties, natural and man-made, are explored. Appropriate selection of textiles for interior use is stressed.  
**2 Class Hours**

## ITALIAN

**PLACEMENT IN LANGUAGE** - Generally one year of high school foreign language is equivalent to one semester in college. Students with two years of a language in high school should register for immediate level courses. Students with three years may not enroll in ITA 101/102

**ITA 101, 102 Beginning Italian** **4, 4 Credits**  
Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Reading and discussion of graded literary and cultural texts.  
**4 Class Hours**  
**Prerequisite:** ITA 101 Beginning Italian for ITA 102

**ITA 201 Intermediate Italian I** **3 Credits**  
Comprehensive review of grammar and structure of the language. Intensive reading of literary works as a basis for topics of conversation in Italian in the classroom. Emphasis on aural comprehension and oral practice in classroom.  
**3 Class Hours**  
**Prerequisite:** ITA 102 Beginning Italian

**ITA 202 Intermediate Italian II** **3 Credits**  
Intensive reading of literary works of recognized authors as a basis for topics of conversation in Italian in the classroom.  
**3 Class Hours**  
**Prerequisite:** ITA 201 Intermediate Italian I

**ITA 299 Independent Study: Italian** **1-3 Credits**  
An individualized student project concerned with advanced work in specific area of Italian. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.  
**Prerequisite:** 3 semester hours of college level work in Italian

## LITERATURE

The Department of English recommends that students complete ENG 110 before taking literature courses.

**LIT 200 Introduction to Literature** **3 Credits**  
A survey of basic genres and themes in literature with introduction to literary analysis. Required of A.A. Students in Liberal Arts.  
**3 Class Hours**

**LIT 210 Studies in United States Literature I** **3 Credits**  
History and development of United States literature from colonial period to late 19th Century. Emphasis on several major writers of the period.  
**3 Class Hours**

**LIT 211 Studies in United States Literature II** **3 Credits**  
History and development of United States literature from late 19th Century to the present. Emphasis on several major writers of the period.  
**3 Class Hours**

**LIT 214 Studies in British Literature I** **3 Credits**  
History and development of British literature from the Middle Ages to the 18th Century. Selections of literary merit from prose, drama, poetry.  
**3 Class Hours**

**LIT 215 Studies in British Literature II** **3 Credits**  
History and development of British literature from the beginning of the 18th Century to the middle of the 20th.  
**3 Class Hours**

**LIT 220 The World of the Short Story** **3 Credits**  
An examination of the development of American, British and Continental short stories. Emphasis on theme and structure.  
**3 Class Hours**

**LIT 230 American Drama** **3 Credits**  
Studies in dramatic theories, techniques and thematic problems of the American drama. (Students taking this course may also be interested in THR 101 Fine Arts: Introduction to Theatre and THR 111 Acting).  
**3 Class Hours**

**LIT 233 World Drama** **3 Credits**  
Studies in dramatic theories, techniques and thematic relationships of the world drama. (Students taking this course may also be interested in THR 101 Fine Arts: Introduction to Theatre and THR 111 Acting.)  
**3 Class Hours**

**LIT 235 Tragic and Comic Vision of Shakespeare** **3 Credits**  
Shakespeare as both dramatist and poet. Emphasis on selected comedies, histories, tragedies.  
**3 Class Hours**

**LIT 240 The Poetic Experience: Sight and Sound** **3 Credits**  
An exploration of the different modes and moods of poetic expression. A thematic and structural approach to poetry as a total experience.  
**3 Class Hours**

**LIT 250 Portraits of Women** **3 Credits**  
An in-depth examination of what it means to be a woman as presented by representative literary artists, both women and men, in critically acclaimed pieces of literature. Emphasis on 19th and 20th Century material.  
**3 Class Hours**

**LIT 253 Psychological Investigation in Literature** **3 Credits**  
The application of Jungian, Freudian and other psychological theories and insights to selected short stories, novels, and poems to promote more penetrating appreciation of character's motivations and actions and the literary work in general.  
**3 Class Hours**

**LIT 255 Modern Existential Literature** **3 Credits**  
An investigation of the themes of alienation and the absurd in selected prose and poetry to shed light on man's current existential crisis.  
**3 Class Hours**

**LIT 257 Heritage of Modern Literature** **3 Credits**  
An attempt to define modern literature as an embodiment and development of antique themes and traditions through the comparative study of the epic, the novel and related genre.  
**3 Class Hours**

**LIT 260 Detective Fiction** **3 Credits**  
A critical study of one of the most popular literary forms of our time, designed for armchair detectives. Starting with Poe, Conan Doyle (Sherlock Holmes) and other classics in the field, the course traces the development of the detective story from its puzzle-solving beginnings to the modern psychological novel of crime and detection.  
**3 Class Hours**

**LIT 263 Children's Literature** **3 Credits**  
Children's literature with introduction to the variety of books available today and development of standards for evaluating them. Prime concern is to help the student use the literature with children creatively, recognizing the importance of language arts, communication and listening skills in cognitive development.  
**3 Class Hours**

**LIT 265 Biblical Literature** **3 Credits**  
An acquisition of the skills necessary to study the Bible. Emphasis on the Biblical narrative and its relationship to Western culture through reading and analysis.

**LIT 268 Fantasy and the Anti-Story** **3 Credits**  
An overview of two popular literary types: fantasy and anti-story. History of these types, with focus mainly on 20th Century development as the types have matured. Students read non-realistic fiction.  
**3 Class Hours**

# MATHEMATICS

## MAT 090 Basic Mathematics Review (Formerly MAT 003)

0 Credits

Basic Mathematics Review is designed to give the student proficiency in elementary mathematics and provide a firm foundation for credit courses. It consists of three units allowing each department to select the units needed as prerequisites for its courses or programs.

3 Class Hours

### A. Arithmetic and Introduction to Algebra

Arithmetic of whole numbers, fractions and decimals. Percent, measurement, metric units, ratio and proportion. Language of algebra, arithmetic of signed numbers, solving simple equations. Problem solving.

### B. Elementary Algebra

Addition, subtraction, multiplication, division and simplification of algebraic expressions. Graphing. Solving linear equations and inequalities in two variables.

Prerequisite: Basic Mathematics Review A

### C. Geometry and Introduction to Trigonometry

Properties and measurements of angles. Similar and congruent triangles, polygons and circles. Perimeter, area and volume measurements. Use of trigonometric ratios to solve right triangle problems.

Prerequisite: Basic Mathematics Review B

### D. Metric Conversions and Dosage Computation

Common fractions and decimal fractions. Percentages, ratios and proportions. Metric computations. Apothecary systems. Apothecary, metric and household conversions. Calculation of dosages. Designed to meet the mathematics proficiency required for clinical nursing course.

Prerequisite: Basic Mathematics Review B

Basic Mathematics Review is typically available in both a traditional lecture format or as a self-paced course. Students in the self-paced course use audio-visual aids with a self-study manual, and they work individually with the instructor.

NOTE: MAT 090 has strict requirements, whereby students may be deregistered from the class for poor attendance. This deregistration may result in a loss of financial aid. Consult course outline and/or instructor for further details.

A complete sequence of Basic Math Review would begin with the first section of Arithmetic and Introduction to Algebra and end with the last section of Geometry and Introduction to Trigonometry. But few students study the entire sequence. In the self-study sections, the entry point in the sequence is determined by a placement test. The exit point is usually determined by the student's program requirements. All units are available in every scheduled section.

This course not applicable toward any degrees.

## MAT 104 Basic Technical Mathematics

5 Credits\*

Basic Arithmetic operations - Applied Geometry, basic Algebraic operations, Linear equations, graphing, factoring. Algebraic fractions, systems of linear equations, exponents and scientific notation, roots and radicals, quadratic equations. Trigonometric functions and graphs, solving right triangles, Laws of Sines, Law of Cosines. Designed to prepare technical students to enter MAT 139 Algebra and PHY 100 Preparatory Physics.

5 Class Hours \*(Credit applies only to a certificate program, credit does NOT apply to any degree program.)

## MAT 113 Mathematics: A Liberal Art I

3 Credits

An introduction to the variety and structural beauty of mathematics. Topics include: inductive and deductive reasoning, games and sequences, functions and their graphs, combinations, permutations, elementary probability, statistics, statistical graphs, misleading uses of statistics. Computer applications will support some of the topics. For Liberal Arts students: recommended for Fine Arts or Humanities majors; not for Science majors.

Prerequisite: MAT 090A Basic Mathematics Review or equivalent

## MAT 114 Mathematics: A Liberal Art II

3 Credits

An introduction to the variety and structural beauty of mathematics. Topics include: large numbers, exponents and logarithms, symmetry in two and three dimensional figures, mathematical curves in nature and science, networks, trees, topology and mathematics of finance. Computer applications will support some of the topics. For Liberal Arts students: recommended for Fine Art or Humanities majors; not for Science majors.

Prerequisite: MAT 090A Basic Mathematics Review or equivalent.

## MAT 117 Elementary Finite Mathematics with Algebra

4 Credits

Sets, probability, matrix algebra, graphing, inequalities, linear programming, permutations and combinations, linear models of equilibrium, systems of linear equations, solving equations and inequalities. (Student may not use both MAT 145 and MAT 117 to meet graduation requirements.)

4 Class Hours

Prerequisite: MAT 090B Basic Mathematics Review or equivalent

## MAT 119 Modern Basic Mathematics I (Formerly MAT 131)

3 Credits

Algebra of propositions. Algebra of sets. Systems of numeration other than base ten. Properties of the operations of addition and multiplication for the sets of whole numbers integers and rational numbers. In trodution to number theory. For Liberal and General Studies Students; recommended for elementary education majors.

3 Class Hours

Prerequisite: MAT 090B Basic Mathematics Review or equivalent

## MAT 120 Modern Basic Mathematics II

3 Credits

Real number systems, other mathematical systems. Informal geometry, congruence, measurement of areas and volumes, basic constructions. Coordinate geometry, lines, circles, equations. Inequalities and linear programming. Simple and conditional probability. Introduction to statistics.

3 Class Hours

Prerequisite: MAT 119 Modern Basic Mathematics I or MAT 090C Basic Mathematics Review or equivalent

## MAT 124 Statistics

(Formerly MAT 114)

3 Credits

Descriptive statistics, organization and presentation of data, measures of central tendency. Variance, standard deviation, binomial distribution, statistical interference. Random sampling, hypothesis testing, confidence intervals, normal distribution, analysis of variance. Chi-square distribution, students t-distribution, correlation and regression. (Students may not use both MAT 124 and MAT 125 to meet graduation requirements.)

3 Class Hours

Prerequisite: MAT 090B Basic Mathematics Review, MAT 104 Basic Technical Math or equivalent

## MAT 125 Statistics I Using Computers

3 Credits

Introducing the computer language MINITAB to analyze descriptive statistics, organization and presentation of data, measures of central tendency, standard deviation, binomial distribution, statistical interference, random sampling, hypothesis testing, confidence intervals, normal distribution, Chi-square distribution, student's t-distribution, correlation and regression, Levey-Jennings and Youden Plots. (Students may not use both MAT 124 and MAT 125 to meet graduation requirements.)

3 Class Hours, 1 Laboratory Hour

Prerequisite: MAT 090B Basic Mathematics Review, MAT 104 Basic Technical Math or equivalent

## MAT 139 Algebra

4 Credits

Real and complex numbers, algebraic operations, functions and graphs, exponents and logarithms, linear and quadratic equations, systems of linear equations, linear inequalities, the binomial theorem, matrices and determinants.

4 Class Hours

Prerequisite: MAT 090B Basic Mathematics Review, MAT 104 Basic Technical Math or equivalent

## MAT 140 Trigonometry

4 Credits

Trigonometric functions and their graphs, solutions of triangles, trigonometric identities and equations, inverse trigonometric functions, position vectors, polar representation of complex numbers. DeMoivre's theorem.

4 Class Hours

Prerequisite: MAT 139 Algebra or equivalent

## MAT 145 Finite Mathematics (Formerly MAT 121)

3 Credits

Boolean Logic, matrices, linear programming, simplex game theory, graphs, networks, application of networks and graphs. (Students may not use both MAT 145 and MAT 117 to meet graduation requirements.)

3 Class Hours

Prerequisite: MAT 139 Algebra or equivalent



**MAT 146 Introduction to Calculus 3 Credits**  
 Analytic geometry of line, circle and parabola. Functions and their graphs. Limits and continuity, differential - rules and applications, integration techniques and applications. Exponential and logarithmic functions and applications. Recommended for social science, health science and business students. Not for math majors or science majors in the A.S. degree program. (Formerly MAT 122).  
**3 Class Hours**  
**Prerequisite:** MAT 139 Algebra or equivalent

**MAT 161 Pre-Calculus (Replaces MAT 141) 4 Credits**  
 A review of algebra and trigonometry emphasizing computational skills. Algebraic operations, functions, graphs, exponents, logarithms, linear equations, inequalities, determinants, quadratic equations. Trigonometry, solutions or triangles, trigonometric graphs. Complex numbers and vectors.  
**Prerequisite:** Completion of a course in Algebra and Trigonometry or placement by advisor

**MAT 162 Applied Calculus I (Formerly MAT 142) 4 Credits**  
 Basic analytic geometry, distance, equations of lines. Limits, continuity and the derivative. Differentiation of polynomials, maxima and minima. Differentials and approximation, applications in kinematics and circuits. The definite integral and applications to finding area, center of gravity, volume of revolution, work done. Approximate integration, differentiating products and quotients, implicit differentiation and related rates, differentiation and integration of logarithmic, exponential, trigonometric and inverse trigonometric functions.  
**4 Class Hours**  
**Prerequisite:** MAT 161 Pre-Calculus or equivalent

**MAT 181 Calculus I with Analytic Geometry 4 Credits**  
 A university-parallel calculus course covering equations of lines, functions, limits and continuity. Differentiation of algebraic and trigonometric functions with applications including curve sketching, rectilinear motion, related rates, maxima and minima. Summation, integration and the fundamental theorem of calculus. Applications of the definite integral including area, volume, arc length, surface area and work.  
**4 Class Hours**  
**Prerequisite:** MAT 161 Pre-Calculus Mathematics or equivalent

**MAT 182 Calculus II with Analytic Geometry 4 Credits**  
 Differential and integration of logarithmic, exponential, hyperbolic functions, inverse trigonometric, inverse hyperbolic functions and parametric expressions. Techniques of integration including integration by parts, partial fractions and trigonometric substitution. Improper integrals, indeterminate forms and L'Hopitals rule. Infinite series and convergence testing. The Polar Coordinate System and its applications. Vectors in two and three dimensions. Unit tangents and normals. Lines in three space. Dot and cross product. Sequences, lines, test for convergence of a series.  
**4 Class Hours**  
**Prerequisite:** MAT 181 Calculus I with Analytic Geometry

**MAT 250 Discrete Mathematics 4 Credits**  
 Sets, functions, proof techniques, relations, partially ordered sets, order isomorphisms, combinatorics including permutations, combinations, the pigeonhole principle, binomial and multinomial coefficients, recurrence relations, generation functions, the principles of inclusion-exclusion, graph theory including paths and connectedness, Eulerian and Hamiltonian graphs, graph isomorphisms, trees, binary search trees and Huffman codes, minimum spanning trees, directed graphs and networks and finite state machines.  
**4 Class Hours**  
**Prerequisite:** MAT 182 Calculus II with Analytic Geometry, PHI 202 Logic and ability to program in Fortran or Pascal.

**MAT 252 Introduction to Numerical Analysis 4 Credits**  
 Computer techniques for the modeling and solutions of problems in numerical analysis. Error analysis, roots of equations, linear and non-linear systems of equations, calculus of finite differences, numerical integration, curve fitting, numerical solution of ordinary differential equations. The computer language Pascal is used.  
**4 Class Hours**  
**Prerequisite:** MAT 182 Calculus II with Analytic Geometry and ability to program in Pascal or Fortran

**MAT 264 Linear Algebra 4 Credits**  
 Linear equations and matrices, real vector spaces, the algebra of linear transformations and matrices, determinants, eigenvalues and eigenvectors.  
**4 Class Hours**  
**Prerequisite:** MAT 182 Calculus II with Analytic Geometry

**MAT 266 Introduction to Higher Mathematics 3 Credits**  
 Exposure to basic mathematical methods and concepts. Sets, sequences, mapping, convergence. Preparation for analysis, topology and modern algebra. Recommended for Mathematics majors, Computer students and Engineering Science students, as advised.  
**Prerequisite or corequisite:** MAT 281 Calculus III with Analytic Geometry or permission of instructor

**MAT 281 Calculus III with Analytic Geometry 4 Credits**  
 Power series, radius of convergence. Conic sections and rotation of axes. Partial differentiation, directional derivatives, gradients, maxima and minima. Volume and other applications done by multiple integrals. Introduction to first order differential equations.  
**4 Class Hours**  
**Prerequisite:** MAT 182 Calculus II with Analytic Geometry

**MAT 282 Differential Equations with Linear Algebra 4 Credits**  
 First order differential equations. Matrices, determinants and solutions of systems of linear equations. Vector spaces, Wronskians, linear transformations and differential operations. Characteristic values and vectors, real symmetric matrices, functions of matrices. Homogenous and nonhomogeneous linear differential equations with constant coefficients, undetermined coefficients and variations of parameters. Matrix formulation of linear systems of differential equations and solution by characteristic values, the exponential matrix function, nonhomogeneous linear systems, LaPlace transforms and power series solutions.  
**4 Class Hours**  
**Prerequisite:** MAT 281 Calculus III with Analytic Geometry

**MAT 299 Independent Study 1-4 Credits**  
 The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving work assignment.  
**Prerequisite:** Department Chairperson Permission

## MECHANICAL ENGINEERING TECHNOLOGY

**MET 110 Introduction to Technologies 1/2 Credit**  
 Familiarization with College policies and services, department policies and services, the curriculum and career/transfer possibilities. Development of basic technical skills including use of hand-held calculators and computers.  
**1 Class Hour**

**MET 113 Engineering Drawing I 2 Credits**  
 An introductory course in the fundamentals of engineering drawing. Topics include lettering, geometric construction, basic dimensioning, sectioning, auxiliary views, sketching & shape description, and revolutions.

**MET 116 Engineering Drawing II with CAD 2 Credits**  
 A continued study in engineering drawing with an introduction to a CAD System. Selected topics to include assembly drawings, fits and tolerances, descriptive geometry along with an introduction to CAD.  
**Prerequisite:** MET 113 Engineering Drawing I

**MET 121 Manufacturing Processes I 3 Credits**  
 A basic study of manufacturing materials and processes, such as producing and processing ferrous and non-ferrous metals, metallurgy and heat treatment of steel, hot and cold working techniques, welding, and various casting processes. Laboratory exercises provide an opportunity for actual practice in the operation of selected manufacturing production equipment.  
**2 Class Hours, 2 Laboratory Hours**

**MET 122 Manufacturing Processes II 2 Credits**  
 A continuation of Manufacturing Processes I. Special topics to include screw thread systems and their measurement, Electrical Discharge Machining, Indexing, Gear terminology and Manufacturing Methods, Powder Metallurgy, N/C and C.N.C. Machining. Laboratory exercises parallel classroom topics and will provide the student with an opportunity to practice some of these manufacturing methods.  
**1 Class Hour, 3 Laboratory Hours**  
**Prerequisite:** MET 121 Manufacturing Processes I

### **MET 125 Programming Numerical Control Machine Tools**

**2 Credits**

Rectangular coordinate system, point to point and continuous path programming, reading and preparation of perforated tape and actual programming of certain numerical control equipment. Computer assisted programming and the relationship of group technology will be discussed.

**2 Class Hours**

**Prerequisites:** MAT 139 Algebra or equivalent and MET 122 Manufacturing Processes II or instructor's approval.

### **MET 132 Applied Mechanics**

**4 Credits**

**STATICS:** Free body diagram, trusses, friction, centroids, moments of inertia.

**DYNAMICS:** Motion of particles and bodies without consideration of the forces required to produce or maintain motion (Kinematics), unbalanced forces and the motion they produce (kinetics), work and energy, impulse and momentum.

**4 Class Hours**

**Prerequisite:** PHY 141 Physics and MAT 161 Precalculus or equivalent or department chairperson approval.

### **MET 223 Manufacturing Processes III**

**2 Credits**

Further experience with indexing, spiral work, cams, cylindrical grinding.

**1 Class Hour, 2 Laboratory Hours**

**Prerequisite:** MET 122 Manufacturing Processes II

### **MET 235 Strength of Materials**

**3 Credits**

Normal and shear stress and strain, elastic and plastic deformation, torsion, stress in thin-walled cylinders, joints, shear force and bending moment in beams, beam stresses, beam deflection, multi-directional plane stress.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** MET 132 Applied Mechanics

### **MET 238 Mechanical Design**

**4 Credits**

An analysis of machine motion and the design of machine elements. Analysis of motion of linkages and mechanisms for displacement, velocity and acceleration relationships. Design and analysis of weldments, fasteners, springs, power screws, couplings, shafts, clutches, gears and bearings.

**3 Class Hours, 3 Laboratory Hours**

**Prerequisite:** MET 235 Strength of Materials and CAD 200 Introduction to Computer Graphics or CAD 211 Basic Mechanical Design

### **MET 243 Fluid Mechanics**

**3 Credits**

The study of fluid statics and dynamics. Topics include fluid forces, flow measurement, the steady flow energy equation, viscosity, laminar and turbulent flow, frictional losses, pipeline systems, drag and lift, and open channel flow.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** MET 132 Applied Mechanics

### **MET 244 Thermodynamics**

**3 Credits**

A study of the property and energy relationships in non-flow and steady flow applications. Topics include ideal gas relationships, real working substances, the first and second law of thermodynamics, thermodynamic cycles, and available energy. The cycle concept is applied to steam power, internal combustion engines, gas turbines, refrigeration and heat pumps. Consideration is also given to combustion analysis, nuclear energy and heat transfer.

**2 Class Hours, 3 Laboratory Hours**

**Prerequisite:** PHY 142 Physics II

### **MET 246 Refrigeration and Air Conditioning**

**3 Credits**

Energy transfer systems and controls used for cooling an environment below the temperature of its surroundings. Air and humidity calculations, heat transfer and transmission coefficients, heating loads, distribution systems, refrigeration systems, cooling load and air conditioning calculations, controls and control systems.

**3 Class Hours**

**Prerequisite:** MET 243 Fluid Mechanics

**Corequisite:** MET 244 Thermodynamics

### **MET 248 Fluid Power**

**3 Credits**

Static and dynamic fluid force systems used for both actuation and control of mechanical devices. Application of frequently used fluid power components and circuits.

**3 Class Hours**

**Prerequisite:** MET 243 Fluid Mechanics and MET 244 Thermodynamics

### **MET 252 Engineering Materials and Industrial Processes**

**4 Credits**

Properties, applications and processing of engineering materials including metallic, non-metallic and composite materials.

**3 Class Hours, 3 Laboratory Hours**

**Prerequisite:** MET 121 Manufacturing Process I and MET 235 Strength of Materials

### **\*MET 253 Engineering Materials and Industrial Processes**

**3 Credits**

Properties, applications and processing of engineering materials including metallic, non-metallic and composite materials.

**2 Class Hours, 2 Laboratory Hours**

**Prerequisite:** MET 121 Manufacturing Processes I and MET 235 Strength of Materials

### **MET 263 Engineering Statistics and Quality Control**

**2 Credits**

Introduces measures of the central tendency and dispersion of data. Relates the theories of statistics and probability to the industrial techniques of control charting and acceptance sampling. Emphasizes the concepts of accuracy, precision, and repeatability in engineering measurement. Topics include normal, hypergeometric, binomial, and Poisson distributions; control charts for mean, range, fraction defective, etc.; single, multiple, and continuous sampling; reliability; specifications, tolerances, and measurement.

**1 Class Hour, 2 Laboratory Hours**

**Prerequisite:** MAT 161 Precalculus, or MAT 139 Algebra

### **\*MET 280 Management Decisions**

**2 Credits**

Objective criteria and evaluation in making decisions. Currently accepted procedures to conceive management models and systems.

**2 Class Hours**

### **\*MET 285 Time, Motion and Wage Study**

**2 Credits**

Analysis of time spent and methods used for industrial tasks. Relations to wage structure on individual and plant-wide basis.

**2 Class Hours**

**Prerequisite:** MAT 139 Algebra

### **\*MET 286 Production Control**

**2 Credits**

Planning, scheduling and routing of goods through a plant from raw materials to finished products. Production control principles, the control of manufacturing processes.

**2 Class Hours**

**Prerequisite:** MAT 139 Algebra

### **\*MET 287 Plant Layout and Materials Handling**

**2 Credits**

Plant arrangement as it influences industrial operations. Assembling data, coordinating operations, developing operational layouts, evaluative arrangements. Materials handling requirements, planning and evaluation.

**2 Class Hours**

**Prerequisite:** MAT 139 Algebra

### **MET 295 Seminar**

**1-3 Credits**

An opportunity for the interested student to become involved with the process of research, formal paper preparation, formal delivery and defense of ideas presented. Also a critical evaluation of ideas set forth by others.

**Prerequisite:** As established by the Department Chairperson

### **MET 299 Independent Study**

**2-4 Credits**

The student undertakes an independent project in his specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving a work assignment.

**Prerequisite:** Approval of Department Chairperson

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**



# MEDICAL ASSISTING

## MDA 102 Medical Assisting Science 2 Credits

Introduction to the profession of medical assisting. Qualifications and duties, professional affiliation, history of medicine, ethics and professionalism, the role of the medical assistant in the physician's office. Interactions with patients and staff.

2 Class Hours

## MDA 104 Keyboarding and Medical Word Processing 3 Credits

Introduction to and development of basic keyboarding skills on typewriters and computer keyboards and introduction to word processing. Students will have the opportunity to learn keyboarding and word processing functions and apply that knowledge with hands-on development of skills. Emphasis will be on application to medical correspondence, reports, and chart notes. For Health Science students only.

2 Class Hours, 3 Laboratory Hours

Prerequisite: BIO 131 Human Biology and and MRT 105 taken concurrently or consent of instructor

## MDA 106 Medical Correspondence and Communications 2 Credits

Development of correspondence and communication skills. Fundamentals of machine-dictated and written medical reports and correspondence. Patient related communications, such as reception and telephone techniques, message taking and patient information skills. For Medical Assisting students.

2 Laboratory Hours

Prerequisites: MRT 105 Medical Terminology I and MDA 104 Keyboarding and Medical Word Processing or consent of instructor

## MDA 114 Standard First Aid Management of Emergencies 1 Credit

The causes, care and prevention of accident/emergency life-saving situations. Mastery level of the proficiency of basic skills. Certification by National Safety Council. Recognizing, managing and aiding the physician in medical emergencies and maintaining emergency supplies. Professional observer with EMT

2 Laboratory Hours

## MDA 115 Medical Assisting Procedures I 4 Credits

Basic clinical procedures of medical assisting in the physicians' office. Use and management of diagnostic instruments and equipment. Related patient care, professional ethics, medical terminology nomenclature. For Medical Assisting students.

3 Class Hours, 2 Laboratory Hours

Prerequisite: MRT 105 Medical Terminology or consent of instructor

## MDA 201 Medical Assisting Procedures III 4 Credits

Introduction to basic microbiology, hematology and urinalysis. Collection, preparation and testing of blood, urine and body fluids. Significance of laboratory analysis. For Medical Assisting students.

2 Class Hours, 4 Laboratory Hours

Prerequisite: BIO 132 Human Biology II

## MDA 206 Medical Office Management 4 Credits

Medical office administrative procedures, such as bookkeeping principles and practices, patient health records, insurance forms, banking and postal services, payroll records, patient accounts, office machines. Mechanics of applicable medical correspondence. Appointment scheduling, supplies and inventory. Emphasis on practical application of administrative techniques. For Medical Assisting students.

3 Class Hours, 3 Laboratory Hours

Prerequisite: MDA 102 Medical Assisting Science and MDA 106 Medical Correspondence and Communications

## MDA 208 Medical Ethics, Law and Economics 3 Credits

Emphasizing the medical ethics which set the standards of conduct for physicians, as well as guidelines for medical assistants. Requirements to practice medicine, legal liabilities of the profession, and the importance of medicolegal consent forms. Legal arrangements of private medical practices, medical care financing, and systems of health care delivery.

3 Class Hours

## MDA 210 Pharmacology 2 Credits

A practical course relevant to health science courses. Emphasizes knowledge of prescriptions and prescription writing. Basic principles of mathematics in pharmacy. Drugs governed by U.S.P. standards which are in common use and the generic-pharmaceutical relationship. Drug grouping action in relation to human physiology. For Health Science students.

2 Class Hours

Prerequisite: BIO 132 Human Biology II or consent of instructor

## MDA 211 Medical Assisting Procedures II 4 Credits

Advanced technical procedures in medical assisting specifically oriented to the various medical specialties. Techniques of electrocardiography, audiometry and physical therapy. Field trips and practical experiences give additional background outside of the classroom. For Medical Assisting students. (It is strongly recommended that this course be taken the semester prior to MDA 245 Directed Practice.)

2 Class Hours, 4 Laboratory Hours

Prerequisite: BIO 132 Human Biology II and MDA 115 Medical Assisting Procedures I

## MDA 245 Directed Practice 5 Credits

Directed practical experience as an extern in physician's offices, medical centers, school health departments, rehabilitation clinics, and other health care facilities, weekly seminar. For senior Medical Assisting students who must have a 2.0 overall average.

1 Class Hour, 16 Laboratory Hours

Prerequisite: MDA 206 Medical Office Management and MDA 211 Medical Assisting Procedures II. MDA 201 Medical Assisting Procedures III and MDA 210 Pharmacology must be taken previously or concurrently.

# MEDICAL LABORATORY TECHNOLOGY

## MLT 110 Introduction to Medical Laboratory Technology 1 Credit

Overview of the field of Medical Technology. Designed to acquaint the student with six areas of a clinical laboratory and with the professional role of the technologist/technician in that setting. Discussions will include the variety of opportunities open to those entering the field.

1 Class Hour

## MLT 201 Hematology and Coagulation 3 Credits

Comprehensive study of the hemopoietic and hemostatic systems. The normal physiology and classic pathology of both systems. Emphasis is on the mechanics and interpretation of routine and special test procedures.

3 Weeks: 2 Class Hours, 4 Laboratory Hours per day

Prerequisite: Freshman Year in Medical Laboratory Technology or approval of MLT advisor

## MLT 201P Hematology and Coagulation Practicum 3 Credits

Clinical experience in the hematology laboratory of an affiliated hospital. Designed for observation and development of technical skills needed to perform in a hematology/coagulation laboratory.

3 Weeks: 30 Hours per week of practicum

Prerequisite: MLT 201 Hematology and Coagulation

## MLT 202 Urinalysis/Body Fluids 1 Credit

Study of the Physiologic processes which result in the formation of urine and body fluids. Emphasis on analysis of fluids and interpretation of test results.

1 Week: 2 Class Hours, 4 Laboratory Hours per day

Prerequisite: Freshmen Year of Medical Laboratory Technology or permission of MLT advisor.

## MLT 202P Urinalysis/Body Fluids Practicum 1 Credit

Clinical experience in the Urinalysis/Body Fluid area of an affiliated hospital. Designed to give students experience and competence in performing standard laboratory techniques.

1 Week: 40 Hours of Practicum

Prerequisite: MLT 202 Urinalysis/Body Fluids

## MLT 203 Microbiology 6 Credits

Survey of the microbial world, from taxonomy, morphology, and structure to metabolism, genetics, and growth characteristics of microbes. Emphasis in the latter part of course on the isolation and identification of medically important microbes.

5 Weeks: 3 Class Hours, 3 Laboratory Hours per day

Prerequisite: Freshman Year Medical Laboratory Technology or permission of MLT advisor

**MLT 203P Microbiology Practicum****2 Credits**

Clinical experience in the Microbiology area of an affiliated hospital. Students gain competence in diagnostic techniques used in the growth and identification of medically important microbes.

**2 Weeks: 40 Hours per week****Prerequisite:** MLT 203 Microbiology**MLT 204 Phlebotomy****1 Credit**

Training and experience in the practice of phlebotomy, teaching students to recognize and use blood collection equipment, isolation techniques and precautions, and perform procedures of routine venipuncture and skin puncture. Practical experience at affiliated hospitals.

**8 Class Hours, 30 Practicum Hours****MLT 205 Immunology****4 Credits**

Study of mechanisms of immune response, including discussions of humoral and cell-mediated immunity, complement, phagocytosis, and the interaction of all systems. Immunodeficiency, autoimmunity, immune proliferation and immunopathology examined in relation and contrast to normal immune function. Laboratory sessions and emphasize testing to determine immune status and diagnose disease.

**3 Weeks: 2 Class Hours, 4 Laboratory Hours per day, to include simulated experience.****Prerequisite:** Freshmen Year of Medical Laboratory Technology or permission of MLT advisor**MLT 206 Immunohematology****2 Credits**

Introduction to the field of blood banking. Theoretical knowledge of blood groups and blood grouping, component and transfusion therapies, transfusion reactions, and allo- and autoantibody formation. In laboratory sessions the student performs ABO and Rh grouping, antibody identification, and compatibility testing.

**2 Weeks: 2 Class Hours, 4 Laboratory Hours per day****Prerequisite:** Freshman Year in Medical Laboratory Technology or permission of MLT advisor**MLT 206P Immunohematology Practicum****2 Credits**

Experience in the Blood Bank of an affiliated hospital. Students perform routing blood bank procedures.

**2 Weeks: 35 Hours per week****Prerequisite:** MLT 206 Immunohematology**MLT 207 Clinical Chemistry****5 Credits**

Designed to cover the principles and analytical methods of clinical chemistry as performed in the Medical Laboratory. The relationship of physiochemical measurements of body function in health and disease including the renal, liver, digestive and respiratory systems. Emphasis on those chemical tests which evaluate the function of these systems related to metabolism, protein synthesis, pH blood gases, electrolyte balance, enzymes and hormones. Laboratory work includes the theory, operation and maintenance of the specialized and semi- and fully automated analytical instrumentation used to perform these chemical tests.

**5 Weeks: 2 Class Hours, 4 Laboratory Hours per day****Prerequisite:** Freshmen Year in Medical Laboratory Technology or permission of MLT advisor**MLT 207P Clinical Chemistry Practicum****3 Credits**

Clinical experience in the Chemistry and Special Chemistry areas of an affiliated hospital. Students practice methods learned in MLT 207 Clinical Chemistry to expand their technical skills into a broader range of equipment and more advanced instrumentation

**3 Weeks: 35 Hours per week.****Prerequisite:** MLT 207 Clinical Chemistry**MLT 299 Independent Study****1-4 Credits**

Course content covering advanced work in Medical Laboratory Technology on which the instructor and student agree. The material is beyond the scope of an ordinary course and it must be approved by the department chairperson. Conducted under the direction of a faculty member.

**Prerequisite:** Department Approval

## MEDICAL RECORD TECHNOLOGY

**MRT 101 Medical Record Science I****2 Credits**

Functions of a medical record department and overview of the professional association. Definition of, standards for, and development of a medical record as to content, format, evaluation and completion. A comprehensive review of the organization of the medical staff. Numbering and filing systems and methods. Overview of accrediting agencies for health care facilities.

**2 Class Hours****Corequisite:** MRT 101L Medical Record Science I Laboratory**MRT 101L Medical Record Science Laboratory****1 Credit**

Practical application in the medical record laboratory of the principles described in the lecture mode of this course.

**2 Laboratory Hours****Corequisite:** MRT 101 Medical Record Science I**MRT 105 Medical Terminology I****2 Credits**

Medical terminology as correlated with anatomical systems. Suffixes, prefixes, root words and use of the medical dictionaries. For Medical Assistant students.

**2 Class Hours****MRT 106 Medical Terminology****4 Credits**

A study of the language of medicine, including suffixes, prefixes and root words. Emphasis on terminology associated with the anatomic systems. For Medical Record Technology students.

**4 Class Hours****MRT 107 Medical Transcription****3 Credits**

Orientation to typewriting techniques and skills as well as basic word processing techniques utilizing the IBM-PC. Introduction to various medical reports, format and basic medical transcription.

**2 Class Hours, 2 Laboratory Hours****Prerequisite:** MRT 102 Medical Terminology**MRT 110 Medical Record Science II****3 Credits**

A study of medical record department indexes, registers, and data abstracting and retrieval methods. In-depth treatment of basic hospital and vital statistics. Data display and report generation.

**3 Class Hours****Prerequisite:** MRT 101 Medical Record Science I**Corequisite:** MRT 110 Medical Record Science II Laboratory**MRT 110L Medical Record Science II Laboratory****1 Credit**

Applications of the principles learned in the lecture mode of this course.

**2 Laboratory Hours****Corequisite:** MRT 110 Medical Record Science II**MRT 115 Medical Terminology II****2 Credits**

A continuation of MRT 105 Medical Terminology I. Emphasis on terminology associated with the integumentary, musculoskeletal, nervous, special senses, cardiovascular, digestive, respiratory, genito-urinary and endocrine systems.

**2 Class Hours****Prerequisite:** MRT 105 Medical Terminology I**MRT 144 Directed Practice****4 Credits**

Directed summer practical experience in the hospital medical record department. Development of insight and skills into the basic medical record procedures. Graduation requirement.

**40 Laboratory Hours per week for 4 Weeks****Prerequisite:** MRT 110 Medical Record Science**MRT 202 Medical Record Science III****3 Credits**

A study of the purpose of classifying diseases and operations. In-depth study of nomenclature/classification systems, such as ICD-9-CM, CPT-4, DSM-III and ICD-O. Introduction to the prospective payment system utilizing DRGs.

**3 Class Hours****Prerequisite:** MRT 110 Medical Record Science II and BIO 131 and BIO 132 Human Biology, or permission of the instructor.**Corequisite:** MRT202L Medical Record Science III Laboratory and BIO 140 Pathophysiology.**MRT 202L Medical Record Science III Laboratory****1 Credit**

Actual practice of coding medical records utilizing various classification systems, and assignments of DRGs.

**2 Laboratory Hours****Corequisite:** MRT 202 Medical Record Science III**MRT 208 Advanced Medical Transcription****2 Credits**

Review of medical terminology emphasizing specialized terminology. Advanced medical transcription techniques through the use of recorded history and physical examinations, discharge summaries, consultation reports, operative reports and outpatient notes.

**1 Class Hour, 2 Laboratory Hours****Prerequisite:** MRT 107 Medical Transcription



**MRT 210 Medical Record Science IV 2 Credits**  
Principles of management and the role of the supervisor in the medical record department. Developmental and operational phase of health information systems. Trends in health care delivery systems. Overview of ambulatory care, long term care and psychiatric facilities. Introduction to problem Oriented Medical Record System.  
**2 Class Hours**  
**Prerequisite:** MRT 202 Medical Record Science III and MRT 202L Medical Record Science II Laboratory  
**Corequisite:** MRT 210L Medical Record Science IV Laboratory

**MRT 210L Medical Record Science IV Laboratory 1 Credit**  
Practical application of the principles described in the lecture mode of this course.  
**2 Laboratory Hours**  
**Prerequisite:** MRT 110 Medical Record Science II and MRT 144 Directed Practice

**MRT 216 Clinical Practicum 1 Credit**  
Enables the students to utilize the knowledge and skills obtained in the classroom and directed practice assignments. Students perform the functions of an actual medical record department and use the computer assignments. Students perform the functions of an actual medical record department and use the computer terminal, microfilm equipment and medical transcription word processing center.  
**2 Laboratory Hours**  
**Prerequisite:** MRT 110 Medical Record Science and MRT 144 Directed Practice

**MRT 222 Medical Legal Aspects 3 Credits**  
Introduction to legal aspects of medical records. Legal basis for medical practice, confidentiality. Patient's "Bill of Rights," voluntary and involuntary release of medical information. Authorizations and consents, professional liabilities, medical-moral issues such as abortion, euthanasia, sterilization, artificial insemination.  
**3 Class Hours**  
**Prerequisite:** MRT 202 Medical Record Science

**MRT 236 Quality Assurance 2 Credits**  
A study of the components of a quality assurance program—quality assessment, utilization management, and risk management.  
**1 Class Hour, 2 Laboratory Hours**  
**Prerequisite:** MRT 110 Medical Record Science

**MRT 245 Directed Practice 6 Credits**  
Directed practice experience in the hospital and related sites. Correlated with MRT 210 Medical Record Science to develop insight and skills into advanced medical record procedures.  
**6 Weeks: 40 Hours per week**  
**Prerequisite:** MRT 202 Medical Record Science and MRT 144 Directed Practice

**MRT 295 Medical Record Seminar 2 Credits**  
Detailed study and analysis of specific problems encountered in the administration of a medical record department. Correlated with directed clinical practice. Case study and extensive literature review.  
**2 Class Hours**

## MUSIC

**MUS 101 Introduction to Music 3 Credits**  
A survey course examining the music of the great composers representing each major period of Music History. How to listen to different forms of music such as symphonies, concertos, opera and jazz will be included in the topics covered. Emphasis on developing listening skills to bring the student to an informed awareness and understanding of great music.  
**3 Class Hours**

**MUS 105 Music Theory I 3 Credits**  
A beginning course in music theory, including basic rudiments of music. Pitch and rhythmic notation, scales and intervals. Ear training through melodic and rhythmic drills and dictation.  
**3 Class Hours**

**MUS 106 Music Theory II 3 Credits**  
Continuation of Music Theory I. Traditional harmony, exercises in melodic, rhythmic and harmonic dictation, aural analysis, beginning composition.  
**3 Class Hours**  
**Prerequisite:** MUS 105 Music Theory I or consent of instructor

**MUS 112 20th Century Music 3 Credits**  
Important musicians and musical styles of the 20th Century. Emphasis on the trends and development of music in America. Leading European composers. (Not offered in 1988-89.)  
**3 Class Hours**  
**Prerequisite:** MUS 101 Introduction to Music or consent of instructor

**MUS 114 History of Opera 3 Credits**  
A survey of the various styles of opera from the 17th through the 20th centuries. Emphasis on the works of master composers — Monteverdi, Mozart, Verdi and Wagner; impact of opera on music history; social and cultural contents of opera.  
**3 Class Hours**  
**Prerequisite:** MUS 101 or permission of instructor

**MUS 180 Jazz Improvisation 2 Credits**  
Basic concepts of soloing in the jazz idiom for instrumentalists. Teach students to interpret chord symbols and understand the sounds that they represent in a meaningful way to create a jazz solo with their instrument. Attendance at jazz concerts required.  
**1 Class Hour, 3 Studio Hours**  
**Prerequisite:** MUS 105 Music Theory I or permission of instructor  
May be repeated for credit once.

**MUS 185 Beginning Guitar 1 Credit**  
Emphasis on Music Fundamentals, scales, chords, reading rhythms and learning to accompany singers. Students must own their own instruments.  
**2 Studio Hours**

**MUS 186 Guitar Ensemble 1 Credit**  
Provide students the opportunity to perform music for the guitar in a group setting. Emphasis will be on group and individual playing. The music played will be chosen with respect to the historical literature available.  
**2 Studio Hours**  
May be repeated for credit 3 times.

**MUS 187 The Guitar: Its History and Music 3 Credits**  
The development of the physical and musical history of the instrument is presented through live performances and recordings. The history of the guitar and its importance relative to composers and performers throughout music history will be identified.  
**3 Class Hours**

**MUS 188 Practical Music Theory for the Performing Musician 3 Credits**  
Designed to help the novice performer of music understand key signatures, scales, rhythms, chords, form intervals, transposition, notation and sight reading. Emphasis on fundamentals of music and practical application of what is learned.  
**3 Class Hours**

**MUS 190 The College Choir 1 Credit**  
Students who sing in the College Choir receive one credit per semester. See page 33.  
**3 Studio Hours**

**MUS 191 Music Performance 1 Credit**  
Students who participate in the recitals or concerts of the academically-associated Broome Community College Music Performance groups receive one credit per semester.  
May be repeated 3 times for credit.

**MUS 192 Woodwind Ensemble 1 Credit**  
May be repeated 3 times

**MUS 193 Brass Ensemble 1 Credit**  
May be repeated 3 times

**MUS 194 Voice Class I 1 Credit**  
Provides any student the opportunity to learn correct vocal production, breath control, diction, articulation and musical interpretation of art songs. Emphasis is on tonal production and group and individual singing.  
**2 Studio Hours**

**MUS 195 Jazz Ensemble 1 Credit**  
By audition only.  
May be repeated 3 times.

**MUS 196 String Ensemble 1 Credit**  
(Not for guitarist).  
May be repeated 3 times.

**MUS 197 Applied Music I** **1 Credit**  
 For students in their first semester. To enable instrumental and vocal students to study privately with a teacher and develop their musical performance abilities. Not a course for beginners. A minimum of 15 lessons required per semester. Cost of lessons not included in BCC tuition.  
**2 Studio Hours**

**MUS 198 Applied Music II** **1 Credit**  
 Continuation of MUS 197 Applied Music I, for second semester students. A minimum of 15 lessons required per semester and continued musical growth and maturity in solo and ensemble performance is expected. Cost of lessons not included in BCC tuition.  
**2 Studio Hours**  
**Prerequisite:** MUS 197 Applied Music I

**MUS 199 Intermediate Guitar** **1 Credit**  
 Continuation of beginning guitar. Emphasis on picking techniques, fingerings, chords, music reading and performance. There will also be a greater emphasis on technique.  
**2 Studio Hours**

**MUS 294 Voice Class II** **1 Credit**  
 Continuation of Voice Class I and for students who have performed in high school musicals, chorus and/or those who have studied privately. This is a group situation in which vocal literature appropriate to individual and group singing will be sung.  
**2 Studio Hours**  
**Prerequisite:** MUS 194 Voice Class I or permission of instructor

**MUS 297 Applied Music III** **1 Credit**  
 Continuation of MUS 198 Applied Music II, for third semester students.  
**2 Studio Hours**  
**Prerequisite:** MUS 198 Applied Music II

**MUS 298 Applied Music IV** **1 Credit**  
 Continuation of MUS 297 Applied Music III, for fourth semester students.  
**2 Studio Hours**  
**Prerequisite:** MUS 297 Applied Music III

**MUS 299 Independent Study: Music** **1-3 Credits**  
 An individual student project concerned with advanced work in a specific area of music. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.  
**Prerequisite:** 3 semester hours of college level work in music.

# **NURSING**

**ADN 100 Meeting Basic Human Needs** **4 Credits**  
 In Basic Human Needs, the student is introduced to the conceptual framework upon which the curriculum is designed. The needs approach, based on Maslow's Hierarchy of Human Needs, is emphasized. This is the basis for applying the nursing process to the delivery of patient care within the adult life cycle. Biopsychosocial concepts are used to present the holistic human within varied cultures. Emphasis is placed on the maintenance of homeostasis based on the wellness/illness continuum. The student is introduced to the basic concepts of pharmacology. Class content and skills learned in nursing skills laboratory are applied during clinical laboratory experiences. ADN 100C runs concurrently with lecture component and successful achievement is required.  
**4 Class Hours**

**ADN 100C Meeting Basic Human Needs** **2 Credits**  
 Clinical Component. S/U Grade given.  
**6 Clinical Hours**

**ADN 102 Meeting Mobility Needs** **3 Credits**  
 This course focuses on the concepts of immobility, incorporating the nursing process. Maslow's Hierarchy of Needs and the life cycle. Neurologic, orthopedic and sensory dysfunctions are explored. Perioperative concepts including the psychophysiologic aspects of pain are included. Stages of illness and the physiology of disturbances of body temperature are presented. Autoimmune diseases and their nursing implications are explored. The nursing process is used to correlate class theory, nursing skills and clinical skills. This course builds on the student's prior knowledge of anatomy and physiology. ADN 102C runs concurrently with lecture component and successful achievement is required.  
**3 Class Hours**  
**Prerequisites:** ADN 100 Meeting Basic Human Needs and BIO 131 Human Biology I

**ADN 102C Meeting Mobility Needs** **2 Credits**  
 Clinical Component. S/U Grade given.  
**6 Clinical Hours**

**ADN 103 Nursing Issues I** **1 Credit**  
 Nursing Issues is designed to explore, in detail, critical thinking, analytical writing, decision making, values clarification and the setting of priorities within the context of ethical, legal and cultural influences impacting on self and the practice of nursing. Assertiveness and management skills will be explored and applied to nursing practice situations. Emphasis will be on personal accountability and the management of multiple patient care situations.  
**2 Seminar Hours**  
**Prerequisite:** ADN 100 Meeting Basic Human Needs

**ADN 204 Regulatory Concepts** **3 Credits**  
 This course focuses on the nursing process and Maslow's Hierarchy of Needs across the life cycle. Stress, both physical and non-physical is discussed as how it affects and is effected by human physiology and pathology.

Mechanisms of normal fluid and electrolyte control are presented. The more common disturbances of body fluid and electrolytes are explored as a means of applying the nursing concepts of prevention of client problems, maintenance of existing client strengths and restoration of clients to an optimum level of health. Endocrine function is reviewed and the effects of dysfunction are presented. The nursing process is used to correlate class theory, the student's prior knowledge of anatomy and physiology. ADN 204C runs concurrently with lecture component and successful achievement is required.  
**3 Class Hours**  
**Prerequisites:** ADN 102 Meeting Mobility Needs, BIO 132 Human Biology II and Developmental Psych.

**ADN 204C Regulatory Concepts** **1 1/2 Credits**  
 Clinical Component. S/U Grade given.  
**4½ Hours Campus Lab**

**ADN 205C Psychological Concepts I** **1 Credit**  
 This course will focus on mental health concepts, providing a therapeutic environment and applying the nursing process using Maslow's Hierarchy of Needs. Therapeutic relationships (individual/group) are established in the care of clients with affective and thought disorders. These relationships are based on principles of psychiatric nursing using the wellness-illness continuum as well as communication theory. Class content is applied across the life cycle, incorporating cultural and teaching/learning needs during the student's experience on an in-patient psychiatric unit as well as integrated into all other clinical laboratory experiences. ADN 205C runs concurrently with lecture component and successful achievement is required.  
**3 Class Hours**  
**Prerequisites:** ADN 102 Meeting Mobility Needs, BIO 132 Human Biology II and Developmental Psych

**ADN 205C Psychological Concepts I** **1 Credit**  
 Clinical Component. S/U Grade given.  
**3 Hours Campus Lab**

**ADN 206 Concepts of Obstruction and Inflammation** **3 Credits**  
 This course focuses on the concepts of obstruction and inflammation, incorporating the nursing process, Maslow's Hierarchy of Needs and the life cycle. Theories of communicable disease and infection are presented as well as the concepts of autoimmune and allergic responses. The digestive tract is used to illustrate broad concepts of infection, inflammation and obstruction. The physiology of neoplastic growth is explored as it relates to both benign and malignant cells. The nursing process is used to correlate class theory, nursing skills and clinical skills. This course builds on the student's prior knowledge of anatomy and physiology. ADN 206C runs concurrently with lecture component and successful achievement is required.  
**3 Class Hours**  
**Prerequisites:** ADN 204 Regulatory Concepts

**ADN 206C Concepts of Obstruction and Inflammation** **1 1/2 Credits**  
 Clinical Component. S/U Grade given.  
**4½ Clinical Hours**



**ADN 207 Oxygenation Concepts****3 Credits**

This course focuses on the concept of oxygenation, incorporating the nursing process, Maslow's Hierarchy of Needs and the life cycle. All systems responsible for maintaining adequate systemic oxygen are explored. Also considered is the phenomenon of compensation between body systems. The interrelatedness of stress and the body's demand for oxygen becomes a central theme throughout the course.

Common disruptions in the related systems are presented as a means of establishing the nursing concepts of prevention and restoration of clients to their optimum level of health. The nursing process is used to correlate class theory, nursing skills and clinical skills. This course builds on the student's prior knowledge of anatomy and physiology. ADN 207C runs concurrently with lecture component and successful achievement is required.

**3 Class Hours****Prerequisite:** ADN 204 Regulatory Concepts**ADN 207C Oxygenation Concepts****1 1/2 Credits**

Clinical Component. S/U Grade given.

**4½ Clinical Hours****ADN 208 Psychological Concepts II****3 Credits**

This course will focus on mental health concepts, providing a therapeutic environment and applying the nursing process using Maslow's Hierarchy of Needs. The concepts of therapeutic relationships (individual/group), are applied in the care of clients with neuroses, chemical dependency, social aggression and pediatric mental illness/retardation. These relationships are based on principles of psychiatric nursing using the wellness-illness continuum and crisis intervention and communication theories. Additionally, the history of psychiatric nursing and the legal implications regarding the care and rights of psychiatric clients will be examined. Class content is applied across the life cycle, incorporating cultural and teaching/learning needs during the student's experiences on an in-patient psychiatric unit as well as integrated into all other clinical laboratory experiences. ADN 208C runs concurrently with lecture component and successful achievement is required.

**3 Class Hours****Prerequisites:** ADN 205 Psychological Concepts I**ADN 208C Psychological Concepts II****1 Credit**

Clinical Component. S/U Grade given.

**3 Hours Campus Lab****ADN 210 Family Centered Maternity Nursing****3 Credits**

The focus of this course is Family Centered Maternity Nursing. The maternal cycle is presented as a developmental task of the young adult, with emphasis on preparation for parenthood, and the experience of labor and delivery as a normal physiological process. The reality of parenthood, and the psychosocial and cultural implications of childbearing on the family and middle aged woman are also considered. The effects of childbirth on the adolescent and middle aged woman are also considered.

Although the effects of a normal pregnancy on the family are emphasized, selected physical and behavioral problems for the mother and common problems of the newborn are discussed.

Through application of the nursing process using Maslow's Hierarchy of Needs, the student will correlate class, nursing skills and clinical theory and skills. The course builds on the student's prior knowledge of anatomy and physiology.

During clinical practice the student will utilize hospital resources and community services available to aid individuals in their search for an optimum level of wellness. ADN 210 C runs concurrently with lecture component and successful achievement is required.

**3 Class Hours****Prerequisites:** ADN 102 Meeting Mobility Needs, BIO 132 Human Biology II and Developmental Psych.**ADN 210C Family Centered Maternity Nursing****1 1/2 Credits**

Clinical Component. S/U Grade given.

**4½ Hours Campus Lab****ADN 293 Assessment Skills I****1 Credit**

This course is designed to expand basic physical assessment skills. Content incorporates assessment of normal anatomy and physiology, and changes of the human in normal development and the disease process. A practice lab is included.

**1 Class Hour****ADN 294 Assessment Skills II****1 Credit**

This course is designed to expand basic physical assessment skills. Content incorporation assessment of normal anatomy and physiology, and changes of the human body in normal development and the disease process. A practice lab component is included.

**1 Class Hour****ADN 297 Nursing Seminar II****1 Credit**

Nursing Issues II is a broad survey course examining career planning, employment strategies, nursing history and nursing practice issues. Students are given an opportunity to access their knowledge in preparation for the NCLEX licensure examination.

**2 Seminar Hours****Prerequisites:** ADN 103 Nursing Issues I, ADN 204 Regulatory Concepts, ADN 205 Psychological Concepts I, and ADN 210 Family Centered Maternity Nursing**ADN 298 Nursing Seminar III****0 Credits**

Transfer and advance placement students meet in a seminar setting to facilitate transition into the nursing program. The nursing department philosophy, use of the classroom bibliography and objectives, and nursing process are discussed. Students are provided an opportunity to practice and demonstrate selected nursing skills. Individual conferences are held with each student to assess progress.

**Prerequisites:** Students in this course must have met requirements for transfer or have passed the required challenge examination for advance placement.

## OFFICE TECHNOLOGIES

**Note-**Students who fail a skill course twice will not be allowed to register a third time without taking a full semester away from the course and completing the Counseling Center tests

**DOT 101A Typewriting****1 Credit**

Introduction to the electric typewriter keyboard and machine operations. Development of basic skill building in typing exact copy by touch for 3 minutes with a maximum of 3 errors.

**2 Class Hours, 3 Laboratory Hours, 5-Week Course****Prerequisite:** For international students, English as a Second Language or permission of instructor**DOT 101B Typewriting****1 Credit**

Continuation of skill building with emphasis on pacing and rhythm drills. Development of speed and accuracy in typing exact copy by touch for 5 minutes with a maximum of 5 errors.

**2 Class Hours, 3 Laboratory Hours, 5-Week Course****Prerequisite:** DOT 101A Typewriting or equivalent**DOT 101C Typewriting****1 Credit**

Development of basic techniques in preparing typewritten letters, horizontal and vertical centering exercises, memorandums, tabulations, outlines, manuscripts.

**2 Class Hours, 3 Laboratory Hours, 5-Week Course****Prerequisite:** DOT 101B Typewriting or equivalent**DOT 102A Typewriting****1 Credit**

Advanced skill building with emphasis on pacing and rhythm drills. Development of speed and accuracy in typing exact copy by touch for 5 minutes with a maximum of 5 errors.

**2 Class Hours, 3 Laboratory Hours, 5-Week Course****Prerequisite:** DOT 101C Typewriting, ability to type without looking at keys and a 5-minute timing at 41 net words per minute with 5-error maximum.**DOT 102B Typewriting****1 Credit**

Development of advanced techniques in typing different styles of business letters, manuscripts, memorandums.

**2 Class Hours, 3 Laboratory Hours, 5-Week Course****Prerequisite:** DOT 102 A Typewriting or equivalent**DOT 102C Typewriting****1 Credit**

Development of advanced techniques in typing different styles of tabulations, financial statements and business forms.

**2 Class Hours, 3 Laboratory Hours, 5-Week Course****Prerequisite:** DOT 102A Typewriting or equivalent**DOT 108 Keyboarding****1 Credit**

Development of basic skills in typing exact copy by touch for three minutes with a maximum of three errors on the IBM Personal Computer.

**3 Class Hours, 5-Week Course****DOT 109 Basic Transcription****3 Credits**

Designed to improve understanding of basic sentence structure, grammar, business vocabulary and punctuation as related to the business world. Practical application through exercises at the typewriter on rough draft copy.

**3 Class Hours****Prerequisite:** DOT 101A, B or equivalent or concurrent enrollment in DOT 101 A, B

**DOT 110 Shorthand 3 Credits**  
 Beginning course in Gregg Shorthand, Series 90 System. Basic principles to promote the ability to read fluently from plates and notes. Longhand and typewritten transcription from shorthand notes dictated from unfamiliar material at minimum rate of 40 words a minute.  
**2 Class Hours, 3 Laboratory Hours**  
**Prerequisite:** DOT 101 A, B and C Typewriting or equivalent or concurrent enrollment in DOT 101 A, B and C Typewriting

**DOT 111 Shorthand and Transcription 3 Credits**  
 Development of a minimum rate of 60 words per minute shorthand speed, dictated from unfamiliar material, with efficient transcription techniques to produce typewritten mailable transcripts. Emphasis on shorthand speed building while integrating the correct usage of principles of grammar, spelling, punctuation, capitalization, vocabulary, numbers, word division, words often confused.  
**2 Class Hours, 3 Laboratory Hours**  
**Prerequisite:** DOT 110 Shorthand or equivalent and DOT 101 A, B, and C Typewriting or equivalent and DOT 109 Basic Transcription of concurrent enrollment

**DOT 130 Freshman Orientation 1/2 Credit**  
 Introduction to the College and departmental policies and procedures. Discussions pertaining to the Department of Office Technologies options and career paths. A review of the College's services available for students.  
**1 Class Hour Bi-Weekly**

**DOT 137 Word Processing I Using Display Write 1 Credit**  
 An opportunity to develop basic word processing skills. Students create, edit, print, and file documents. Hands-on experience as well as theory applied to machine operations.  
**1 Class Hour, 4 Laboratory Hours, 5-Week Course**  
**Prerequisite:** DOT 101 A, B, C Typewriting or equivalent  
**Corequisite:** DOT 102 A, B, C or permission of instructor

**DOT 138 Word Processing II Using Display Write 1 Credit**  
 A continuation of DOT 137 Word Processing I. Students develop additional text editing while learning advanced functions, such as adjusting page lengths, moving text, advanced formatting functions, printing documents while typewriting, creating dual columns, merging documents. The refinement of these skills to be ascertained as students procedure documents and complete relevant projects.  
**1 Class Hour, 4 Laboratory Hours, 5-Week Course**  
**Prerequisite:** DOT 137 Word Processing I

**DOT 139 Word Processing III Using Display Write 1 Credit**  
 A refinement of text editing skills for the word processing major. Students should learn document management and security, loop operations, equations, list processing and the calculator mode. Students should develop input/output text editing skills associated with all previously acquired machine functions. They will create, edit and revise complicated document including manuscripts and statistical reports and tables.  
**1 Class Hour, 4 Laboratory Hours, 5-Week Course**  
**Prerequisite:** DOT 138 Word Processing II

**DOT 141 Word/Information Processing Concepts 3 Credits**  
 Introductory course for the preparation of information processing specialists. Emphasis on terminology and technology of the automated workplace.  
**3 Class Hours**

**DOT 151 Business Communications 3 Credits**  
 Development of desirable written and oral communication style. Review of basic writing mechanics. Composition of letters of inquiry and reply, claim and adjustment, credit and collection, sales and promotion, application. Memorandums, news releases, short reports, telegrams.  
**3 Class Hours**  
**Prerequisite:** DOT 101 C Typewriting or concurrent enrollment and DOT 109 Basic Transcription

**DOT 211 Advanced Typewriting 3 Credits**  
 Training in advanced typewriting techniques. Emphasis in preparing documents for law, insurance, real estate, banking and technical fields. Continuation of speed building.  
**2 Class Hours, 2 Laboratory Hours**  
**Prerequisite:** DOT 102 A, B and C Typewriting and DOT 139 Word Processing III using Display Write.

**DOT 215 Information Processing Applications I 3 Credits**  
 Advanced Text Editing Techniques used to prepare business forms and documents are continued from DOT 137, 138, 139. Students are also taught to integrate those documents and forms with information prepared through the use of spreadsheets, a data base, and graphics programs.  
**3 Class Hours**  
**Prerequisite:** DOT 139, Word processing III Using Display Write

**DOT 220 Information Processing Applications II 3 Credits**  
 Advanced information processing skills will be taught using stand-alone and on-line computers. Students will be instructed in the areas of electronic mail, calendaring, and an advanced word processing package. Students will refine electronic office techniques involving integration of documents prepared using various software packages.  
**3 Class Hours**  
**Prerequisite:** DOT 215 Information Processing Applications I

**DOT 230 Advanced Shorthand 3 Credits**  
 Emphasis on increasing shorthand speeds and improving production of mailable typewritten transcripts through an increased knowledge of basic information and vocabulary from such topics as finance, law, information processing and environmental sciences. Transcription at the typewriter from notes dictated from unfamiliar material at a minimum of 80 words per minute.  
**2 Class Hours, 3 Laboratory Hours**  
**Prerequisite:** DOT 111 Shorthand and Transcription, DOT 102 A, B, C Typewriting or concurrent enrollment, and DOT 137 Word Processing I Using Display Write

**DOT 235 Executive Machine Transcription 1 Credit**  
 Practical experience in the use of transcribing equipment. Students are expected to apply correct usage of principles of grammar, punctuation and spelling, as well as develop increasing skill in transcribing business communications.  
**1 Class Hour, 4 Laboratory Hours, 5-Week Course**  
**Prerequisites:** DOT 111 Shorthand and Transcription, DOT 102, A, B, C Typewriting and DOT 137 Word Processing Using Display Write

**DOT 236 Machine Transcription 4 Credits**  
 Emphasis on increasing skill transcribing recorded materials. Continuing development of knowledge of business vocabulary, correct usage of principles of grammar, punctuation, spelling in the machine transcriptions of business documents.  
**3 Class Hours, 2 Laboratory Hours**  
**Prerequisite:** DOT 102 A and B Typewriting, DOT 109 Basic Transcription, and DOT 137 Word Processing I Using Display Write

**DOT 242 Office Procedures 3 Credits**  
 Final preparation for an office career. Business activities related to word processing, postal and shipping services, telephone procedures, travel arrangements, planning meetings, banking services, application of filing procedures.  
**3 Class Hours**  
**Prerequisite:** For Office Services Assistant students - DOT 151 Business Communications, DOT 236 Machine Transcription, DOT 238 Text Editing II and DOT 243 Records Management.  
 For Executive Secretarial Students-DOT 151 Business Communications, DOT 230 Advanced Shorthand, and DOT 238 Text Editing II and DOT 243 Records Management

**Note-**This is a capstone course and must be taken during the student's final semester.

**DOT 243 Records Management 1 Credit**  
 A study of classification systems including alphabetic, subject, numeric, and geographic methods. In addition, students study the development of information management programs including the record management process, procedures for controlling information, and micrographic and automation processes.  
**3 Class Hours, 5-Week Course**

**DOT 260 Directed Secretarial Experience-Model Office 2 Credits**  
 Secretarial students are required to work at least four hours weekly in order to gain practical working knowledge by producing various types of communications.  
**4 Laboratory Hours**  
**Prerequisite:** DOT 137, 138, 139 Word Processing Using Display Write

**Note-**This is a capstone course and must be taken during the student's final semester, with the exception of those students eligible for advanced placement.



**DOT 262 Dynamics of Success 1 Credit**  
A seminar designed for any student who wishes to develop an extra edge in landing that first job, in getting that promotion, and in being more effective in personal and professional settings. Topics include goal setting, life/work/career planning, time management, power communication skills, assertiveness, self-esteem, self-image, and self-confidence, power/executive dressing, job campaign techniques, and professionalism.  
**1 Class Hour**

**DOT 275 Internship (Procedures) 3 Credits**  
An office procedures seminar in which activities related to information processing, postal/shipping services, telephone procedures, travel arrangements, planning meetings, and professionalism are performed/discussed.  
**3 Class Hours**

**DOT 275L Internship (Work Experience) 2 Credits**  
Career-related employment in a major industry that complements academic preparation in the Office Technologies area. Interns train and work on state-of-the-art information processing equipment and receive on-the-job experience in a variety of office procedures.  
**6-month assignment**  
**Prerequisite:** Departmental Approval

**DOT 299 Independent Study 1-4 Credits**  
Under the guidance of a faculty member, the student will undertake a study, project, or research involving an advanced concept or problem relating to her/his major field of study. Only one independent study course is allowed per semester.  
**Prerequisite:** Approval of faculty member and department Chairperson

## PARALEGAL ASSISTANT

All Paralegal Assistant courses are taught in the evening only.

**\*PLA 110 Survey of Paralegalism 3 Credits**  
Role of the paralegal and attorney. Introduction to jurisprudence and functions of administrative agencies. Local, state, federal courts. Introduction to contracts, torts, negligence, criminal procedure, real property law, law office management. Legal terminology.  
**3 Class Hours**

**\*PLA 120 Advanced Paralegalism 3 Credits**  
Continuation of law office management. Introduction to research techniques, family law, surrogate, wills and estates, agency and partnership, bankruptcy, corporate law, commercial paper, workman's compensation with procedures and practices of each. Legal terminology.  
**3 Class Hours**

**\*PLA 200 Real Property Law 3 Credits**  
Comprehensive survey of law of real property emphasizing practical application to a paralegal function. Analysis of forms of deeds, bonds, notes, mortgages, assignments, discharges, purchase of contracts, leases, options. Training in searching title, basic understanding of abstracts of title, real property litigation, estates, condemnation and foreclosure.  
**3 Class Hours**  
**Prerequisite:** PLA 110 Survey of Paralegalism or permission of department

**\*PLA 207 Legal Writing and Research 3 Credits**  
Development of legal research and drafting skills through use of digests, reporter systems, and other features of law libraries. Analysis of various types of legal documents for clarity, composition, conciseness. Practice in research and drafting of legal documents.  
**3 Class Hours**  
**Prerequisite:** PLA 110 Survey of Paralegalism and ENG 110 Written Expression I, or department permission

**\*PLA 215 Estates, Probates and Trusts 3 Credits**  
Disposition of decedent's property, law of interstate succession, execution and probate of wills, nature and creation of trusts and the administration of estates and trusts, estate and trusts, estate and gift tax preparation.  
**3 Class Hours**  
**Prerequisite:** PLA 110 Survey of Paralegalism or permission of department

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

**\*PLA 220 Contracts 3 Credits**  
The law of contracts, their historical significance, formation, validity, interpretation, transfer or contractual rights. Assignment, third party beneficiaries, discharge, breach and remedies. (BUS 118 Business Law I may be substituted.)  
**3 Class Hours**

**\*PLA 222 Medical Law 3 Credits**  
General coverage of how legal and medical issues are inter-related, including right to treatment, organ transplant, right to die, abortion issues, medical malpractice, informed consent, insanity defense, surrogate mothers. Lecture and discussion. How these topics affect the role of the attorney and paralegal in servicing client needs.  
**3 Class Hours**

**\*PLA 225 Family Law 3 Credits**  
Pleadings relative to general practice of law in relationship to the family unit. Laws relating to marriage, divorce, annulment, custody and support, adoption, name change, guardianship, paternity. Written pleadings and necessary research pertaining to these aspects of family law.  
**3 Class Hours**

**\*PLA 226 Taxation Law for Paralegals 3 Credits**  
Principles of federal taxation, analysis of IRS code and related case law, emphasis on law and concepts of taxation, basic and advanced tax law terminology, litigation involving the IRS. Exploration of social changes, and factors involving tax problems, current issues in tax reform, perspective of the paralegal regarding resolution of tax disputes.  
**3 Class Hours**

**\*PLA 227 Constitutional Law for Paralegals**  
The practice of everyday general law as affected by the U.S. Constitution, and the bill of rights, with applications to the paralegal function. Issues of contemporary concern including cases of local courts and of the Supreme Court and their implications for law in general and society at large.  
**3 Class Hours**  
**Prerequisite:** PLA 207 Legal Writing and Research or departmental permission

**\*PLA 240 Corporate Law 1 Credit**  
Types, uses and organization of the corporation, antitrust and securities law, mergers and consolidation, liquidation and dissolution.  
**1 Class Hour**

**\*PLA 250 Municipal Law 1 Credit**  
Structure and operations of local government in New York State. Evolution of local government in New York during the first two centuries of its existence. Laws, ordinances, and operations.  
**1 Class Hour**

**\*PLA 260 Labor-Management Relations (Labor Law) 1 Credit**  
Labor-management relations in the public and private sectors. Taft-Hartley Act, National Labor Relations Act and Wagner Act, unfair labor practices, labor contracts, arbitration and mediation, availability of injunctions in labor disputes.  
**1 Class Hour**

**\*PLA 270 Vehicle and Traffic Law 1 Credit**  
Regulations of traffic within the State of New York. Emphasis on violations and traffic-related misdemeanors resulting from violation of the rules of the road and court proceedings resulting therefrom.  
**1 Class Hour**

**\*PLA 280 Litigation and Trial Preparation 1 Credit**  
Intake procedures, systems and analysis, concepts of jurisdiction and venue, parties to an action, pleadings, pre-trial procedures, motions and special practice, special proceedings, trials, judgements and appeals.  
**1 Class Hour**

**\*PLA 290 Landlord-Tenant Relations 1 Credit**  
Problems faced by landlords and tenants, private housing, live-in arrangements, covenants, leases, warranties. Tenant and landlord rights and obligations.  
**1 Class Hour**

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

**\*PLA 299 Independent Study: Paralegal 1-3 Credits**

An individual student project in paralegal studies which is beyond the scope or requirements of the courses offered by the program. Conducted under the direction of a faculty member or attorney, and approved by the program coordinator.

**Prerequisite:** PLA Survey of Paralegalism plus three additional hours in a 200 level PLA course.

## PHILOSOPHY

**\*PHI 102 General Philosophy 3 Credits**

Meaning of philosophy, suggestions for reading philosophy, informal logic, methodology and basic philosophical terms including idealism, dualism, naturalism.

**3 Class Hours**

**PHI 103 Philosophy of Mind 3 Credits**

Introduction to metaphysical philosophy. Examination of the major views of reality: dualism, materialism, idealism. Analysis and discussion of evidence and arguments relating to issues such as "mind," immortality, free will vs. determinism, and the existence of God.

**3 Class Hours**

**PHI 104 Philosophy of Religion 3 Credits**

Relation of religion and philosophy and an investigation of different concepts of God. Analysis of religious types and experiences, different attempts to justify religious beliefs. Investigation of the logic of religious experience through an analysis of the leading ideas in the philosophy of religion both as an historical and contemporary phenomenon.

**3 Class Hours**

**PHI 111 Humanities 3 Credits**

Critical analysis of human development from the early beginnings to the present state through a thematic investigation of literature, philosophy, history and the arts. Classical, Medieval, Renaissance and Metaphysical Periods.

**3 Class Hours**

**PHI 112 Humanities 3 Credits**

Critical analysis of human development from the early beginnings to the present state through a thematic investigation of literature, philosophy, history and the arts. Neoclassical, Romantic, Victorian, Early Modern and Late Modern Periods.

**3 Class Hours**

**PHI 120 Verbal Reasoning 3 Credits**

To improve the student's ability in reasoning. Concentration on qualifications, symbols, ambiguity, analysis and semantics.

**3 Class Hours**

**PHI 201 Ethics: Moral Philosophy 3 Credits**

Main classical and modern ethical theories, including such theorists as Plato, Aristotle, Spinoza, Mill, Kant, Moore, Toulmin, Ayer, Westermarck. Comparison and contrast of normative and meta-ethical theories, the good life and how one should act, the meaning of moral judgements and the criteria of validity, justification or moral beliefs and the ground of moral responsibility.

**3 Class Hours**

**PHI 202 Logic 3 Credits**

Analysis and practical application of the elements of logic as they apply to thinking on both a linguistic and formal level. Forms of argument, informal and formal fallacies, significance of the emotions on decision making, inductive and deductive processes. Symbolizing arguments and formal proofs of validity.

**3 Class Hours**

**Prerequisite:** Any Philosophy (PHI) course or any Mathematics (MAT) course numbered MAT 139 or higher

**PHI 203 Philosophical Issues in American Education 3 Credits**

An inquiry into educational problems which can be illuminated by philosophical perspectives: educational aims, conceptions of learning, nature of knowledge, ethics of teaching, theories of moral education, school and society, equal educational opportunity, freedom and authority, and curriculum. Philosophical background to educational policy issues of special interest to prospective teachers, but also to individuals (citizens) concerned about public schools.

**3 Class Hours**

**\*TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS****PHI 206 Social and Political Philosophy 3 Credits**

A philosophical study of the social/political organization of society through an examination of such topics as justice, authority, leadership, individual rights, and of the relationship between the state and various social institutions, such as family, business, church, and education.

**3 Class Hours**

**PHI 208 Humanities and Technology 3 Credits**

An investigation of the interaction of humanities and technology. An examination of the reciprocal impacts of various human values and technology through consideration of these topics: methods of inquiry, communication, life and death, the environment, the industrial revolution, and robotics and artificial intelligence. This course was developed through a grant from the National Endowment for the Humanities.

**3 Class Hours**

**PHI 299 Independent Study: Philosophy 1-3 Credits**

An individual student project concerned with advanced work in a specific area of philosophy. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of ordinary course.

**Prerequisite:** 3 semester hours of college level work in philosophy

## PHYSICAL EDUCATION

*Most of the Physical Education courses are half a semester in length. For the most part, the courses that take place outdoors are given in the first half of the fall semester or the second half of the spring semester; those courses that occur indoors are given in the second half of the fall semester or the first half of the spring semester.*

**NOTE-**Students taking Physical Education courses should have a Health Questionnaire on file with the College Health Service (Wales Building, Room 104). Forms are available in the Health Service upon request.

**PED 100 Archery ½ Credit**

Fundamentals of shooting - seven step approach. Proper target shooting technique and form stressed.

**4 Class Hours, 11 Laboratory Hours per semester**

**PED 103 Backpacking 1 Credit**

A series of laboratories and lectures culminating in a four-day mandatory backpacking trip. Students learn to select, care for, and use properly the essential equipment, as well as some low cost alternatives to expensive items. The stress is on safety and low ecological impact camping.

**15 Class Hours, 15 Laboratory Hours per half semester**

**PED 106 Badminton ½ Credit**

Instruction and practice in the various strokes. Rules, terminology and equipment. Strategy for singles and doubles.

**4 Class Hours, 11 Laboratory Hours per half semester**

**PED 112 Bowling ½ Credit**

Bowling fundamentals including ball selection, grip, stance, approach and delivery. Etiquette, scoring, correction of basic mistakes in delivery. Classes are at off-campus site and students must pay for own games, shoe rental and transportation.

**3 Class Hours, 12 Laboratory Hours per half semester**

**PED 115 Physical Conditioning I ½ Credit**

A general physical conditioning class. Each student is pre-tested and then establishes his/her individual program. A selected battery of exercises (circuit) is utilized with some individual choice. (Formerly entitled Circuit Training and Conditioning.)

**3 Class Hours, 12 Laboratory Hours per half semester**

**PED 116 Physical Conditioning II 1 Credit**

General overall physical conditioning with major emphasis on cardiovascular fitness. Combines indoor and outdoor workouts on alternate days. Class meets three times per week for 10 weeks.

**8 Class Hours, 22 Laboratory Hours per semester**

**PED 121 Golf ½ Credit**

Skills, etiquette and strategy. Students required to play nine holes and hit at a driving range, providing their own transportation and fees. Clubs provided for those without.

**4 Class Hours, 11 laboratory Hours per half semester.**



**PED 122 Horseman ship** **1 Credit**  
Basic of grooming, saddling and safety procedures. Development and expansion of riding skills. Elementary knowledge of horses their care and maintenance. Two options available: 1. English. 2. Western. (Additional fee and taught off campus.)  
**8 Class Hours, 22 Laboratory Hours per semester**

**PED 127 Jogging** **½ Credit**  
Jogging as a possible leisure time activity. Physiology benefits, improvement of technique and basic principles of training. Individual works at own level and sets own goals. Distance usually worked: 2 miles.  
**3 Class Hours, 12 Laboratory Hours per semester**

**PED 130 Karate** **1 Credit**  
Classical karate on the beginning and intermediate levels. Philosophy and brief history of karate. Basic kata (forms) together with self defense and pre-arranged sparring techniques. Free sparring with no body contact. Emphasis on physical conditioning and mental discipline.  
**8 Class Hours, 22 Laboratory Hours per semester**

**PED 132 Concepts in Physical Education** **2 Credits**  
Emphasis on the basic knowledge, understanding and values of physical education. To help students make important decisions about their own personal fitness.  
**30 Class Hours per semester**

**PED 139 Self Defense** **½ Credit**  
Brief explanation of karate, judo and other martial arts. Approximately 10 basic self-defense movements which, if properly acquired and practiced, can be applicable to many situations. Basic techniques of throwing, blocking, falling, punching and general body shifting motions. No definite dress required. A student should remember that exercises are meant to increase flexibility and endurance of muscles, and the dress should be a comfortable one for this purpose. Although this is not the formal karate class, the class will be conducted with formality and discipline.  
**3 Class Hours, 12 Laboratory Hours per semester**

**PED 143 Cross-Country Skiing** **½ Credit**  
Instruction and practice in cross-country skiing - beginning through advanced. Conduct, terminology, safety and equipment. Classes both on and off campus. Skis, poles, bindings provided; students responsible for boots and transportation.  
**3 Class Hours, 12 Laboratory Hours per half semester**

**PED 146 Aerobics** **1 Credit**  
Movement and exercise done with music to achieve cardiovascular fitness, improve muscle tone, develop body awareness, increase energy. Open to both men and women.  
**8 Class Hours, 22 Laboratory Hours per semester**

**PED 147 Soccer (Women)** **½ Credit**  
**PED 148 Soccer (Men)** **½ Credit**  
Instruction and practice in the fundamental skills of kicking, tackling, trapping, dribbling and heading. Rules and tactics. Team competition. Separate sections for men and women.  
**4 Class Hours, 11 laboratory Hours per half semester**

**PED 149 Snorkeling** **1 Credit**  
Designed to teach the swimmer the techniques of snorkeling, safety equipment selection and skills. Offered to student taking Topical Ecology during intersession.  
**8 Class, 22 Laboratory Hours per semester**

**PED 169 Tennis** **1/2 Credit**  
Instruction and practice in the basic strokes - forehand, backhand, serve and volley. Rules, terminology and equipment. Strategy for singles and doubles.  
**4 Class Hours, 11 Laboratory Hours per half semester**

**PED 170 Trail Riding** **½ Credit**  
Basics of grooming, saddling, and safety procedures. Development and expansion of riding skills - learning to cope with natural hazards like creeks, traffic, terrain. Elementary knowledge of horses, their care and maintenance. (Taught off campus and an additional fee is required.)  
**4 Class Hours, 11 Laboratory Hours per half semester**

**PED 171 Physiology of Exercise** **1 Credit**  
Designed to develop an understanding and appreciation for the role of consistent exercise in maintaining good health. The interrelationship of the muscular, cardiovascular, respiratory and digestive systems and the net effect of training on these systems.  
**1 Class Hour**

**PED 172 Volleyball** **½ Credit**  
A basic course in the fundamentals of power volleyball. Team strategy, history and rules. Drills and competitive play.  
**4 Class Hours, 11 Laboratory Hours per half semester**

**PED 175 Weight Training** **½ Credit**  
Introduction to the Universal Gym as a means of physical conditioning. Components of fitness and principles of training discussed. Several strength building prescriptions presented.  
**3 Class Hours, 12 Laboratory Hours per half semester**

**PED 299 Independent Study** **½ or 1 Credit**  
Student undertakes a project of own choice with guidance from faculty member. The project is intended for a student who has completed requirements.  
**Prerequisite: 2 Semester Hours in Physical Education**

## PHYSICAL SCIENCE

**PHS 111 Physical Science for Today** **3 Credits**  
Beginnings of astronomy, the earth and moon, planets and satellites, the sun and other stars, cosmology. Chemistry of our atmosphere, weather and methods of modification, water cycle and pollution. Composition of the earth's crust erosional processes, earthquakes and volcanoes, plate tectonics, energy resources, nuclear radiation. Required field trips supplement classroom experience.  
**2 Class Hours, 2 Laboratory Hours**

**PHS 113 Physical Science - Astronomy** **4 Credits**  
The Copernican and Ptolemaic models of the solar system. The planets, sun, moon and comets. Stellar magnitudes and evolution of stars. The size and age of the universe and modern developments in astronomy and cosmology. Required field trips supplement classroom experience.  
**3 Class Hours, 3 Laboratory Hours**  
**Prerequisite: MAT 090B and C Basic Mathematics Review or equivalent**

**PHS 114 Physical Science - Meteorology** **4 Credits**  
The atmosphere - composition, circulation, energy transfer, observations and instrumentation used. Weather phenomena - air masses, weather patterns, severe weather and optics. Forecasting through observations and plotting. Introduction to climatology, the control and classification of climates based upon principles of meteorology. Required field trips supplement classroom experience.  
**3 Class Hours, 3 Laboratory Hours**  
**Prerequisite: MAT 090B and C Basic Mathematics Review or equivalent**

**PHS 115 Physical Science - Geology** **4 Credits**  
Crystals, minerals, rocks - their structure and identification. Erosion of the crust, its uplifts and deformation. Earthquakes and the interior of the earth, geologic dating and the physical history of the earth. Plate tectonics and continental drift, ecology from a geologic viewpoint. Required field trips supplement classroom experience.  
**3 Class Hours, 3 Laboratory Hours**  
**Prerequisite: MAT 090B and C Basic Mathematics Review or equivalent**

**PHS 116 Physical Science - Energy and Environment** **4 Credits**  
Basic physical principles and the role of these principles in understanding and appreciating the problems of energy production, distribution and the effects on the environment. Problems of pollution and depletion of natural resources. Required field trips supplement classroom experience.  
**3 Class Hours, 3 Laboratory Hours**  
**Prerequisite: MAT 090B and C Basic Mathematics or equivalent**

## PHYSICS

**PHY 100 Preparatory Physics I** **4 Credits**  
Composition and resolution of forces. Kinematics and dynamics. Momentum and Energy conservation Laws. Heat.  
**4 Class Hours**  
**Prerequisite: MAT 104 Basic Technical Mathematics or equivalent**

**PHY 101 Preparatory Physics II** **4 Credits**  
Thermodynamics, wave motion, sound, and light. Electricity and magnetism. Atomic and nuclear physics.  
**4 Class Hours**  
**Prerequisite: PHY 100 Preparatory Physics I**

**PHY 118 Physics for Physical Therapists Assistants 4 Credits**  
 Vectors, linear motion, energy, momentum, electric fields, Ohm's Law, DC & AC circuits, motion of changes in magnetic fields, electromagnetic induction, mirrors, lenses, nature of light. For Physical Therapist Assistant Students.  
**3 Class Hours, 2 Laboratory Hours**  
**Prerequisite:** MAT 090 B and C Basic Math Review or equivalent

**PHY 121 Physics for Radiographers 4 Credits**  
 Motion, conservation laws, the electric field and potential, Ohm's law, DC circuits, the magnetic field, electromagnetic induction, AC circuits, wave motion, electromagnetic waves, atomic structure, production of x-rays, nuclear structure, radioactive decay, interaction of radiation with matter, radiation detection. For Radiologic Technology students.  
**3 Class Hours, 2 Laboratory Hours**  
**Prerequisite:** MAT 090 A and B or equivalent.

**PHY 141 Physics I 4 Credits**  
 Composition and resolution of vectors, forces in equilibrium, moments of forces, elasticity, linear and projectile motion, forces and motion, rotation, work and energy, impulse and momentum, harmonic motion, fluid mechanics. temperature, thermal expansion, heat. For Engineering Technology students.  
**3 Class Hours, 2 Laboratory Hours**  
**Corequisite:** MAT 161 Precalculus or equivalent

**PHY 142 Physics II 4 Credits**  
 Thermodynamics, thermal properties of gases, wave motion, and sound, electrostatics, direct current, magnetism, electromagnetic induction, alternating current, electromagnetic radiation, illumination, reflection and refraction of light, mirrors and lens, optical instruments, diffraction, nuclear energy. For Engineering Technology students.  
**3 Class Hours, 2 Laboratory Hours**  
**Prerequisite:** PHY 141 Physics

**PHY 144 Physics II—E 4 Credits**  
 Thermodynamics, wave motion and sound, photometry; reflection, refraction, dispersion, light, mirrors and lenses, optical instruments, diffraction, lasers, electrostatics, potential, current, resistance, magnetism, semi-conductor theory. For Electrical Technology students.  
**3 Class Hours, 2 Laboratory Hours**  
**Prerequisite:** PHY 141 Physics, EET 121 Electrical Circuits

**PHY 161 Physics I 4 Credits**  
 Structure and language of physics. Standard units of measurement of length, mass and time. Basic mathematical foundation: elementary trigonometry, vector algebra, powers of ten and significant figures. Mechanics: motion, Newton's Law, work, energy and momentum principles, rotation. Waves and wave phenomena, mirrors and lenses, optical instruments, sound. First course in an introductory non-calculus sequence. For Liberal Arts students who need a laboratory science.  
**3 Class Hours, 3 Laboratory Hours**  
**Prerequisite:** MAT 161 Precalculus or equivalent

**PHY 162 Physics II 4 Credits**  
 Concepts of heat and temperature, kinetic theory, thermodynamics. Electricity and magnetism: electrostatics, electrical circuits, electromagnetic phenomena. Modern physics: relativity, quantum theory, atomic structure radioactivity. Second half of introductory physics for Liberal Arts students who need a laboratory science.  
**3 Class Hours, 3 Laboratory Hours**  
**Prerequisite:** PHY 161 Physics

**PHY 181 Engineering Physics I 4 Credits**  
 Vectors, equilibrium, kinematics, Newton's Law of Motion, centripetal force, work and energy, impulse and momentum, rotation, elasticity, harmonic motion, hydrostatics and hydrodynamics.  
**3 Class Hours, 2 Laboratory Hours**  
**Corequisite:** MAT 181 Calculus I with Analytic Geometry and EGR 100 Orientation

**PHY 182 Engineering Physics II 4 Credits**  
 Relativistic mechanics, Coulomb's Law, electrostatic field, potential, capacitance, direct currents, magnetic force on currents, magnetic field of current, induced emf, inductance, alternating currents.  
**3 Class Hours, 2 Laboratory Hours**  
**Prerequisite:** PHY 181 Engineering Physics I  
**Corequisite:** MAT 182 Calculus II with Analytic Geometry and EGR 100 Orientation

**PHY 281 Engineering Physics III 4 Credits**  
 Temperature, heat transfer, thermodynamics, kinetic theory, waves, sound, geometrical and physical optics, introduction to quantum physics, atomic and nuclear physics.  
**4 Class Hours**  
**Prerequisite:** 1 year of calculus and PHY 182 Physics II or equivalent  
**Corequisite:** EGR 200 Orientation

## POLITICAL SCIENCE

**POS 201 Introduction to American Government 3 Credits**  
 American political institutions, processes and behavior. The relationships among cultural, legal and social aspects of the political system. Structure, organization and function of political parties, pressure groups and mass media. Application to contemporary issues and events.  
**3 Class Hours**

**POS 203 International Relations 3 Credits**  
 Basic concepts and principles of world politics. International conflict resolution, international organizations, the struggle for power. Factors affecting the relationships among the major powers. Role of diplomacy, alliances, war and peace in the world arena.  
**3 Class Hour**

**POS 204 American State and Local Government 3 Credits**  
 Theory and practice of state and local government, utilizing a problem-solving or "policy" approach. Students are encouraged to explore in depth the workings of city and county governments locally.  
**3 Class Hours**

**POS 299 Independent Study 1-3 Credits**  
 An independent student project which is beyond the scope of courses currently offered by the department, directed by a faculty member with approval of the department chairperson.  
**Prerequisite:** 3 Semester hours of political science

## PSYCHOLOGY

**PSY 100 Psychology of Personal Adjustment 3 Credits**  
 Investigation of bio-social factors which influence human behavior with emphasis on: (1) development of physical, mental, emotional, social and spiritual well-being; (2) personal responsibility for one's lifestyle and the consequences that flow from one's choices. (This course cannot be used as a prerequisite for other psychology courses).  
**3 Class Hours**

**PSY 103 Psychology of Adulthood 3 Credits**  
 Investigation of the continuity-change pattern that characterizes normal adulthood (20 to 60 years). Identification of individual responses to life crises. Introduction to skills that facilitate meeting self-selected goals and skills that assist others to fulfill their goals.  
**3 Class Hours**

**PYS 110 General Psychology 3 Credits**  
 Definition and description of psychology. Functions of neural system, sensation and perception, learning, memory, motivation, emotion, conflict and frustration, personality, social psychology. Methods and statistical applications, history and fields of psychology.  
**3 Class Hours**

**PSY 150 to 200 Special Topics in Psychology 1 Credit**  
 Topics of interest to a (class size) group will be explored. Prospective students should make their request at least three weeks before the end of the preceding semester. Possible topics, for example, could include stress management or child rearing styles.

**PSY 210 Developmental Psychology 3 Credits**  
 Human development from infancy through childhood, adolescence, and adulthood. Intellectual growth, personal and social adjustment, the relationship between physical and mental development, and typical problems in various stages of the life-cycle are considered. Especially for Nursing students.  
**3 Class Hours**  
**Prerequisite:** PSY 110 General Psychology



**PSY 211 Child Development 3 Credits**

The growth, maturation and development of children, including mental and motor phases, learning, motivation and personality formation.

**3 Class Hours**

**Prerequisite:** PSY 110 General Psychology

**PSY 212 Adolescent Development 3 Credits**

The developmental tasks of the adolescent years, influence of people and institutions on self-concept. Physical, psychological, intellectual effects and intellectual growth.

**3 Class Hours**

**Prerequisite:** PSY 110 General Psychology

**PSY 214 Abnormal Psychology 3 Credits**

Survey of the normal and abnormal personality with special emphasis on certain casual factors pertaining to maladaptive behavior. A general framework for understanding abnormal behavior patterns, including common misconceptions, accepted definitions, and the classification of mental disorders.

**3 Class Hours**

**Prerequisite:** PSY 110 General Psychology

**PSY 217 Introduction to Counseling Theory and Practice 3 Credits**

Varied methods of counseling, employing current theories, situational examples and means for determination of method to be used. Practical cases in social sciences, clinics, hospitals and educational institutions. Overall training and personality of the counselor.

**3 Class Hours**

**Prerequisite:** PSY 110 General Psychology

**PSY 223 Intelligence and the Mentally Retarded 3 Credits**

The several meanings of the concept of intelligence, distribution of intelligence in populations, development and organization of intelligence at different levels, concepts of retardation. The various levels and causations of retardation, development at all chronological ages, learning and employment expectations, methods of assisting with behavioral improvement, cooperative social agencies.

**3 Class Hours**

**Prerequisite:** PSY 110 General Psychology

**PSY 227 Behavior Modification 3 Credits**

Principles of behavior modification using classical and operant techniques. Practical applications of these principles to the fields of child care, psychotherapy and correctional institutions.

**3 Class Hours**

**Prerequisite:** PSY 110 General Psychology

**PSY 299 Independent Study 1-3 Credits**

An individual student project in psychology which is beyond the scope or requirements of the courses offered by the department, conducted by the department, conducted under the direction of a faculty member and approved by the department chairperson.

**Prerequisites:** PSY 110 General Psychology plus 3 additional hours in a 200 level PSY course

## **RADIOLOGIC TECHNOLOGY**

**RAD 100 Introduction to Radiologic Technology 3 Credits**

Overview of radiologic technology through the study of its historical development, its placement in the medical field today, the organization of a modern radiology department, professional ethics, and medicolegal aspects of radiology, and math for radiographers.

**2 Class Hours, 3 Laboratory Hours**

**RAD 101 Radiologic Technology I 3 Credits**

Introduction to the basic principles of radiographic imaging including recording media, processing methods, radiographic quality and radiographic accessories. Lecture and laboratory are coordinated to enhance these fundamental concepts.

**3 Class Hours, 1 Laboratory Hour**

**RAD 102 Radiologic Technology II 3 Credits**

Advanced study of the factors contributing to the radiographic image.

**3 Class Hours, 1 Laboratory Hour**

**Prerequisite:** RAD 101 Radiologic Technology I or permission of instructor

**RAD 103 Positioning I 1 Credit**

Instruction and practice in radiographic positioning of the appendicular skeleton.

**3 Laboratory Hours**

**RAD 104 Positioning II 1 Credit**

Instruction and practice in radiographic positioning of the axial skeleton.

**3 Laboratory Hours**

**Prerequisite:** RAD 131 Clinical Education I

**RAD 105 Medical Terminology 1 Credit**

Basic medical terminology for the student radiographer.

**1 Class Hour**

**RAD 110 Methods of Patient Care 1 Credit**

Patient care procedures routinely performed in the radiology department.

**1 Class Hours, 1 Laboratory Hour**

**RAD 115 Radiation Protection 1 Credit**

Interaction of radiation with living organisms, particularly as related to humans. Emphasizes basic radiation protection, its philosophy and rules governing the application of ionizing radiation on humans.

**1 Class Hour**

**RAD 131 Clinical Education I (Winterim) 0 Credit**

Introduction and orientation to the radiology department in an affiliated hospital. (Successful achievement is a graduation requirement.)

**2 Weeks of instruction**

**Prerequisite:** BIO 131 Human Biology I and RAD 100 Introduction to Radiologic Technology and RAD 110 Methods of Patient Care or permission of instructor

**RAD 132 Clinical Education II 2 Credits**

Observation and clinical experience for the development of competency involving elementary radiographic procedures in an affiliated hospital.

**16 Laboratory Hours**

**Prerequisite:** RAD 131 Clinical Education (Winterim) or permission of instructor

**RAD 133 Clinical Education III (Summer Term I) 3 Credits**

Clinical experience for development of competency involving general radiographic procedures in an affiliated hospital.

**40 Laboratory Hours**

**Prerequisite:** RAD 132 Clinical Education II and BIO 132 Human Biology II or permission of instructor

**RAD 204 Advanced Positioning 2 Credits**

Instruction and practice in positioning techniques involving the skull, facial bones, and advanced radiographic procedures.

**1 Class Hour, 2 Laboratory Hours**

**Prerequisite:** RAD 133 Clinical Education III or permission of instructor

**RAD 210 Radiologic Physics 4 Credits**

Physics of radiographic equipment, including fundamental electronics, X-Ray production, the X-Ray tube and related circuitry, and preventive maintenance.

**4 Class Hours**

**Prerequisite:** PHY 117 Physics or permission of instructor

**RAD 216 Imaging Modalities 1 Credit**

Introduction to the principles of computerized axial tomography, nuclear medicine, magnetic resonance imaging, and ultrasound.

**1 Class Hour**

**Prerequisite:** RAD 210 Radiologic Physics or permission of instructor

**RAD 220 Radiologic Pathology 2 Credits**

A presentation of the various medical and surgical diseases and their relationship to radiographic procedures.

**2 Class Hours**

**Prerequisite:** BIO 132 Human Biology II or permission of instructor

**RAD 225 Special Radiographic Procedures 3 Credits**

Introduction to radiographic examinations involving surgical procedures and specialized equipment.

**3 Class Hours**

**Prerequisite:** RAD 230 Clinical Education IV or permission of instructor

**RAD 230 Clinical Education IV 2 Credits**

Practical application of advanced positioning techniques with emphasis on the skull and facial bones.

**16 Laboratory Hours**

**Prerequisite:** RAD 133 Clinical Education III (Summer) or permission of instructor

**RAD 231 Clinical Education V (Winterim II) 0 Credit**  
 Clinical assignment devoted to the application of radiographic procedures under direct supervision in a cooperating hospital. (Successful achievement is a graduation requirement.)  
**2 Weeks of instruction**  
**Prerequisite:** RAD 230 Clinical Education IV or permission of instructor

**RAD 232 Clinical Education VI 3 Credits**  
 Practical application of advanced radiographic procedures under direct supervision in an affiliated hospital.  
**24 Laboratory Hours**  
**Prerequisite:** RAD 231 Clinical Education V (Winterim) or permission of instructor

**RAD 233 Clinical Education VII 3 Credits**  
 Clinical experience for the development of competency.  
**40 Laboratory Hours**

**RAD 245 Radiobiology 2 Credits**  
 Radiobiology and advanced radiation protection procedures related to diagnostic and therapeutic uses of radiation.  
**2 Class Hours**  
**Prerequisite:** RAD 210 Radiologic Physics or permission of instructor

**RAD 250 Image Assessment 2 Credits**  
 The basic principles and techniques of quality assurance testing presented and illustrated through laboratory experiments. Major emphasis on the tests and measurements used to analyze imaging systems with minimum information loss.  
**2 Class Hours, 1 Laboratory Hour**  
**Prerequisite:** RAD 210 Radiologic Physics or permission of instructor

**RAD 295 Seminar in Radiography 2 Credits**  
 Preparation of the technical report and its organization for both written and oral presentation. Readings in current literature and journals.  
**2 Class Hours**  
**Prerequisite:** Senior Year Status

## READING AND LEARNING SKILLS

**RDG 090 Reading Fundamentals 0 Credits**  
 A non-credit course involving individual diagnosis of student's reading strengths and weaknesses, and development and implementation of program to upgrade basic skills. Content to vary with individual student.  
**2 Class Hours, 2 Laboratory Hours**

**RDG 092 College Preparatory Reading 0 Credit**  
 An individualized course emphasizing vocabulary expansion, inferential and critical comprehension, and flexible rate. Instruction and practice of reading skills to specific content areas.  
**2 Class Hours, 2 Laboratory Hours**

**RDG 094 College Vocabulary Skills 0 Credit**  
 Designed to provide students with several methods of mastering vocabulary encountered in college courses. Students will review dictionary skills. Learn to infer meanings from context, structural analysis, and methods of studying vocabulary for examinations. In-class practice will be designed to fit students individual needs.  
**2 Class Hours, for 8 Weeks**

**RDG 095 Language Arts for the Hearing Impaired 0 Credit**  
 The course is an individualized language arts program for hearing impaired students who do not possess college level English language skills. Focus is on integrating all aspects of the language arts in order to enable the students to more effectively comprehend and use the English language. Materials used will include college textbooks, periodicals, short fiction and film.  
**3 Class Hours, 3 Laboratory Hours**

**NOTE:** RDG 090, 092, 094, and 095 have strict attendance requirements, whereby students may be deregistered from the class for poor attendance. This deregistration may result in a loss of financial aid. Consult course outline and/or instructor for further details.

**RDG 110 Efficient Reading 1 Credit**  
 Development of skills characteristic of the mature reader. Examination of structure of material, emphasis on identification of purpose, flexibility of rate.  
**2 Class Hours, for 10 Weeks**  
**Course starts at beginning of third week of semester**

**RDG 120 Critical Reading 3 Credits**  
 Emphasis is on critical reading and thinking skills. Students will analyze and evaluate college level readings beyond the literal level. Critical thinking skills will also be applied to the mastery of content area text material.  
**3 Class Hours**

All of the following LRS courses are limited-credit activities for students wishing to enhance various study skills:

**LRS 101 Study Management ½ Credit**  
 General principles of academic success, relationship of outside work and study, scheduling and organizing time, study and concentration. Students will construct a working study schedule.  
**3 Class Hours, for 3 Weeks \***

**LRS 102 Memory and Exams ½ Credit**  
 Theories of memory. Methods of review, strategies for taking essay and objective examinations  
**3 Class Hours, for 3 Weeks \***

**LRS 103 Textbook Mastery ½ Credit**  
 Use of College textbooks as study aids, principles of effective text reading, text study systems. Extensive application of these principles in the student's own textbook.  
**3 Class Hours, for 3 Weeks \***

**LRS 104 Listening and Notetaking ½ Credit**  
 Examination of organizational patterns as they exist in oral communication. Exploration of systems on notetaking, and application of systems to student's own lectures and notes.  
**3 Class Hours, for 3 Weeks \***

**\* Students may register for any of these modules anytime before the twelfth week of the semester**

**LRS 105 Learning Skills 2 Credits**  
 General principles of academic success, including scheduling and organizing time, improving concentration and memory, strategies for taking exams and class notes, and the efficient use of college textbooks.  
**3 Class Hours, for 12 Weeks**  
**Course starts at beginning of third week of semester**

**LRS 110 The Research Paper 1 Credit**  
 Shaping the Paper: Development of a topic, location of appropriate resources and digestion of the material. Writing the Paper: Outlining effective composition and proper form. A hands-on approach in which students actually research a topic and compose a term paper.  
**2 Class Hours, for 8 Weeks**  
**Course starts at the beginning of the fifth week of semester**

**LRS 120 The Art of Thinking 2 Credits**  
 Logic as an art. Logical principles taught in imaginative ways to achieve understanding. Emphasis on the practice of reasoning. Fundamental logic rules are taught as tools to enable the students to gain experience and confidence in thinking about issues that are important to them.  
**2 Class Hours, for 8 Weeks**  
**Course starts at the beginning of the fourth week of the semester**

**LRS 130 Introduction to Microcomputers and Word Processing 2 Credits**  
 Introduction to all aspects of the microcomputer through lecture and practice. Students will master at least one wordprocessing package, as well as gain familiarity with both a graphics and a spreadsheet package. This course is intended for students who have no prior knowledge of microcomputers.  
**3 Class Hours for 10 weeks.**  
**Course starts at the beginning of the fifth week of the semester**

**LRS 140 Introduction to Dental Hygiene 0 Credits**  
 This course is designed to provide students with an introductory background in oral anatomy, dental terminology and personal oral hygiene. Additional topics will be covered to assist students with a better understanding of life as a student dental hygienist and a graduate dental hygienist.  
**1 Class Hour, 4 Laboratory Hours**



## **RUSSIAN**

**PLACEMENT IN LANGUAGE** - Generally, one year of high school foreign language is equivalent to one semester in college. Students with two years of a language in high school should register for intermediate level courses. Students with three or more years may not enroll in Beginning Russian.

**RUS 101/102 Beginning Russian I & II** **4 Credits**  
Basic principles of grammar and syntax. Reading and discussion of graded literary and cultural texts.  
**4 Class Hours**

## **SIGN LANGUAGE**

**HUS 120 Basic Sign Communication I** **3 Credits**  
Introduction to conversationally relevant signs, fingerspelling, grammatical sign principles, and background, cultural, and linguistic information related to deaf people and sign language. The Direct Experience Method is used to help students learn to sign by experiencing the use of signs directly. Some emphasis is on non-manual communication (Visual training, gestures and mime are used to help develop a comfort level for using face, hands and body for communication purposes). Approximately 400 signs are introduced.  
**3 Class Hours**

**HUS 220 Basic Sign Communication II** **3 Credits**  
Review of Basic Sign I. Expressive and receptive fingerspelling as well as recall of vocabulary. Sign vocabulary is further organized around basic conversational topics and questions. Sign grammatical principles are expanded and practiced. Approximately 300 signs are introduced.  
**3 Class Hours**  
**Prerequisite:** HUS 120 Basic Sign Communication I

**HUS 230 Basic Sign Communication III** **3 Credits**  
Additional and expanded topics for conversation are introduced with the associated vocabulary. Variations of signed messages by incorporating different sign principles and mime. More emphasis on conversational fluency in sign. The student will be able to generate increasingly more complex signing structures. Approximately 300 additional signs are introduced.  
**3 Class Hours**  
**Prerequisite:** HUS 120 Basic Sign Communication I

## **SOCIAL SCIENCE (INTERDISCIPLINARY)**

**SOS 111 Public Affairs** **3 Credits**  
Contemporary problems examined in the context of American, democratic social and political beliefs and practices. Meaning of liberty, equality, individualism, justice, and civic obligation. Proposals for problem solving via "public policy".  
**3 Class Hours**

**SOS 120 Science Technology and Society** **3 Credits**  
A study of the interaction of the forces of science and technology with contemporary society, such as government, industry, family, education and organized religion. In addition, students examine the major views (utopian optimist vs. dystopian pessimist) on our contemporary scientific technology. Examine such current topics as recombinant DNA research, computers, nuclear weapons, nuclear power, Star Wars, etc.

**SOS 125 Global Security or Nuclear Armageddon:  
Nuclear Weapons and the  
Prospects for Human Survival** **3 Credits**  
Short history of the development of nuclear weapons and the first atomic war. Actual and theoretical effects of nuclear weapons on human beings, organized societies and the environment. Threat of nuclear war in the immediate future, efforts at nuclear arms control and nuclear disarmament, possible security alternatives to nuclear weapons.  
**3 Class Hours**

**SOS 126 War, Peace and a Just World Order** **3 Credits**  
Is war the product of our nature or our nurture? Is the war system an inherent part of the nation state system? Can war be controlled or eliminated in the existing world? If not, on what shape and form will a new world have to be based? How will it be brought into being? These questions and related issues will be addressed as we ponder the prospects of war, peace and a just world order as humanity enters the 21st Century.  
**3 Class Hours**

**SOS 128 The Battle of Gettysburg: It's  
Impact on American Society** **1 Credit**

A survey of the structure and the interrelationships of selective issues in American society. The approach is socio-historical, with an attempt to integrate the major theories and techniques of socio-historical analysis as applied to issues of historical interest relative to a pivotal Civil War battle. Of special interest will be a critical analysis of the decision-making process and the importance of civic responsibility in as much as it relates to the events leading up to the battle, the strategy of the conflict and the anticlimatic aftermath.

**SOS 130 Man, Technology and Environment** **3 Credits**  
Biological, economic, and political dimensions of the environmental crises. The conditions created by population growth, a rising standard of living, the increased demand on natural resources, and the advance of technology. Alternative strategies to deal with pollution and energy problems.  
**3 Class Hours**

**SOS 146 Introduction to Gerontology** **3 Credits**  
Multidisciplinary analysis of the bio-psychological characteristics of older persons. Examinations of major issues and dynamics involved in the process of growing old.  
**3 Class Hours**  
**Prerequisite:** PSY 110 General Psychology or permission of instructor

**SOS 150 Introduction to Human  
Service Work** **6 Credit †**  
Treatment modalities, goal planning, facility usage, counseling, helping skills, principles of human development, etiology, normalization, detection. Institutionalization effects, empathy training, evaluation, problem solving, transactional skills, theoretical systems. ethical issues. Psychoactive drugs, habilitative and rehabilitative programs, community services.

† Credit available only to those who complete successfully a certified institution-based training program and credit is only applicable toward the Associate in Science degree in the Liberal Arts Division's Mental Health and Retardation Emphasis. Credit cannot be used to fulfill other social science requirements.

**SOS/COM 155 Media and Society** **3 Credits**  
An in depth examination and analysis of the impacts and effects of the mass media upon society and the converse societal influences upon the media. Includes such issues as media concentration, portrayal of violence, stereotyping, the public's right to know, among others.  
**Prerequisite:** COM 100 or SOC 110

**SOS 160-169 Case Studies in Ethnicity**  
A sociological analysis of the origins and experiences, the cultural patterns and social relationships of Americans from various ethnic backgrounds.

**SOS 160 The Italian American** **1 Credit**  
Deals with Italian Americans as an attempt to focus on ethnic groups and their persistent impact.  
**1 Class Hour**

**SOS 170-179 Contemporary Cultures**  
Studies in comparative cultures featuring social, political, economic, literary/artistic detail. The United States and at least one foreign culture compared and contrasted as a means of gaining insight into and understanding both.

**SOS 170 United States and the Mideast** **3 Credits**  
Examination of the cultural and political dimensions which underlie current U.S.-Middle East relations and conflicts both internal and external to the region. Historical perspective on comparative cultures and value systems. Political and cultural differences. Energy security, strategic importance to the U.S., and the Arab-Israeli conflict, the Gulf States, Egypt, Turkey, Iran.  
**3 Class Hours**

**SOS 225 Post-Industrial Civilization:  
Honors Seminar** **3 Credits**  
Study of the planet as an independent unit facing the challenge of survival with hemispheric differences between "post-industrialized" and "non-industrialized" societies. Interconnections between economic, political, social systems with varying values and traditions. Major works in studies of the future examined for possible answers to such basic survival questions as problems of population, production and distribution of food, energy and other essential resources, ultimate difficulties of pollution and waste disposal.  
**4 Class Hours**

### **SOS 275 Community Internship**

**3 Credits**

For qualified students a work experience in the professional field in which they plan to major, as they intern in Broome County Government or non-profit human services agencies. Requires application, interview, and a "B" average.

**1 Class Hour, 8 Practicum Hours**

### **SOS 290 Social Science Field Experience**

**3 Credits**

Introduction to the practical issues of the "helping relationship" and an understanding of agency operations. Each student to spend a minimum of 90 hours working in community social and educational agencies. Weekly seminars, outside reading and written reports are required. During the seminars specific helping techniques such as facilitating, goal-setting, reinforcing and supporting will be analyzed.

**1 Class Hour**

**Prerequisite:** 3 Credit hours in psychology or sociology plus completion of or concurrent enrollment in 3 additional credit hours in either of these areas.

## **SOCIOLOGY**

### **SOC 110 Introduction to Sociology**

**3 Credits**

Sociological facts and principles dealing with the scientific study of human relationships. Emphasis on analysis and study of culture and human society, socialization, groups and group structures. Satisfaction, collective behavioral patterns and the concept of social institutions. Initial experiences for students who desire an introduction to the sociological perspective.

**3 Class Hours**

### **SOC 111 Social Problems**

**3 Credits**

The sociology of social and urban problems. Topics may include crime, population, inequality, discrimination, mental illness, attitudes toward work, social control and the dynamics of social change. Students should be aware that individual instructors approach these problems in different ways, depending on students' needs and instructors' interests. SOC 110 Introduction to Sociology is recommended as an initial experience.

**3 Class Hours**

### **SOC 120 Ethnic Groups**

**3 Credits**

Survey of the structure and interrelationships of selective ethnic minority groups. The approach is socio-historical, with an attempt to integrate the major theories and techniques of sociological analysis as applied to issues of ethnic concern. (Not offered in 1988-89)

**3 Class Hours**

### **SOC 210 Crime and Deviant Behavior**

**3 Credits**

The theoretical aspects of deviance as crime, variations in crime rates, the social and psychological causes of crime, other deviant behavior and the salient research discoveries in these areas. Specific areas within criminology will be reviewed from a multidisciplinary approach to permit as broad an understanding of the problem as possible.

**3 Class Hours**

**Prerequisite:** SOC 110 Introduction to Sociology

### **SOC 230 The Family/Marriage and its Alternatives**

**3 Credits**

Social and personal factors which make for adequate family functioning, the forms the family takes, its internal processes and the functions it serves in society. Covers systematically the important theoretical and experimental ground on those issues relevant to both the scholarly and practice-minded student.

**3 Class Hours**

**Prerequisite:** SOC 110 Introduction to Sociology

### **SOC 250 Introduction to Social Work**

**3 Credits**

Social work as a profession in the context of the social welfare institution; historical and philosophical roots of social work and social welfare; attributes of the social work role; social workers' knowledge base; fields of social work practice.

**3 Class Hours**

**Prerequisite:** SOC 110 Introduction to Sociology and PSY 110 General Psychology

### **SOC 299 Independent Study**

**1-3 Credits**

An individual student project in sociology which is beyond the scope or requirements of the courses offered by the department, conducted under the direction of a faculty member and approved by the department chairperson.

**Prerequisite:** 3 Semester Hours in Sociology

## **SPANISH**

**PLACEMENT IN LANGUAGE** - Generally, one year of high school foreign language is equivalent to one semester in college. Students with two years of a language in high school should register for intermediate level courses. Students with three or more years may not enroll in Beginning Spanish.

### **SPA 101, 102 Beginning Spanish**

**4, 4 Credits**

Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Reading and discussion of graded literary and cultural texts.

**4 Class Hours**

**Prerequisite:** SPA 101 Beginning Spanish for SPA 102

### **SPA 201 Intermediate Spanish I**

**3 Credits**

Intensive review and continuation of grammar and syntax. Intensive and extensive reading of literary works of recognized authors. Aural comprehension and oral practice in the classroom.

**3 Class Hours**

**Prerequisite:** SPA 102 Beginning Spanish

### **SPA 202 Intermediate Spanish II**

**3 Credits**

Intensive and extensive reading of literary works of recognized authors. Classroom discussion and conversation based on these texts, in the language.

**3 Class Hours**

**Prerequisite:** SPA 201 Intermediate Spanish I

### **SPA 203, 204 Spanish in Conversation and Composition Through Literary Works**

**3,3 Credits**

The Spanish language in conversation and basic composition practice through the reading of various literary works. Dialogues and scenes, either of original student creation or of published works. (Not offered in 1988-89.)

**3 Class Hours**

**Prerequisite:** SPA 202 Intermediate Spanish II or its equivalent for SPA 203, SPA 203 Spanish in Conversation and Composition Through Literary Works for SPA 204

## **SPEECH**

### **SPK 102 Effective Speaking**

**3 Credits**

Speech communication through voice, words, and action. Voice production, diction, platform presence. Organization of ideas. Practice in presenting speeches of different types.

**3 Class Hours**

### **SPK 299 Independent Study: Speech**

**1-3 Credits**

An individual student project concerned with advanced work in a specific area of speech. Conducted under the directions of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

**Prerequisite:** 3 semester hours of college level work in Speech

## **THEATER**

### **THR 101 Theater Appreciation**

**3 Credits**

Art of the theater to increase understanding and appreciation of drama. A cultural approach considering the interrelationship of all aspects of production including plays, acting, directing, costume, make-up and lighting. Attendance at local productions. (Students taking this course may also be interested in LIT 230 American Drama, LIT 233 World Drama.)

**3 Class Hours**

### **THR 109, 110 Practicum in Theater Design and Technology**

**3, 3 Credits**

Stage design (both lighting and scenic) and construction techniques are studied first hand, as students participate in actual production of two plays each semester. Problems encountered during a production are analyzed. Individualized instruction is increased as students begin to focus on their particular areas of interest.

**3 Class Hours each**

### **THR 111 Acting: External Style**

**3 Credits**

Fundamental acting techniques. Development of individual skills and disciplines relative to external acting techniques. Use of face, voice and movement.

**3 Class Hours**



**THR 112 Acting: Internal Style** **3 Credits**  
Intensive application of acting techniques through scene study and performance. Problems of character analysis, internal acting and style.  
**3 Class Hours.**

**THR 117 Creative Dramatics** **3 Credits**  
Fundamentals of creative dramatics, its use in teaching, recreation and rehabilitation. Introduction to techniques used and practical application opportunities.  
**3 Class Hours**

**THR/COM 121 Make-up for TV and Film** **1 Credit**  
Use of prosthetics and cosmetics. Techniques of executing age, character, and stylistic effects. Students to provide pertinent materials.  
**2 Studio Hours**

**THR/COM 140 Presentation for Radio/TV** **3 Credits**  
Presentation as on-air personality. Development of visual and vocal techniques relating to presentation of news, interviews, commercials and announcements.  
**3 Class Hours**

**THR 151 Theater Production I** **3 Credits**  
Classroom and workshop study relative to production of plays, including historical and dramatic perspective. Script analysis, play selection, audience research, publicity, administration of a theater.  
**3 Class Hours**

**THR 152 Theater Production II** **3 Credits**  
Classroom and workshop training for stage production. Special attention to stage management, operation of stage crews, house management. Coordination of visiting and touring theater companies regarding production and logistics.  
**3 Class Hours**  
**Prerequisite:** THR 151 Theater Production I

**THR 161 Playwriting** **3 Credits**  
Scriptwriting for the theatre. Attention to style, editing, and suitability for performance.  
**3 Lecture Hours**  
**Prerequisite:** ENG 110 and any THR course

**THR 190 Broome Community College Theater** **1 Credit**  
Students who participate in the plays and performances of the BCC Theater Co. receive one credit per semester. See page 31.

**THR 201, 202 Children's Theater** **3, 3 Credits**  
Touring children's theater company during academic year. Performances at area elementary schools for classtime and assembly programs. Visiting with students pre/post production. Design and construction of costumes, sets, and properties. Analysis of children-oriented plays, development of scripts, rehearsal and performance.  
**3 Class Hours each**

**THR 203 Summer Touring Children's Theater Company** **3 Credits**  
Touring children's theater company during summer. Performances at area recreation centers, parks, camps and playgrounds. Visiting with children pre/post production. Design and construction of costumes, sets, and properties. Analysis of children-oriented plays, development of scripts, rehearsal and performance.  
**3 Class Hours**

**THR 218 Role Study and Characterization** **3 Credits**  
The varied creative processes by which an actor might develop a characterization are studied in theory and explored in practice with emphasis upon screenwork.  
**3 Class Hours**

**THR 219 Periods and Styles of Acting** **3 Credits**  
Procedures and techniques necessary for acting in theatrical and period productions such as Elizabethan, Italian Renaissance, Restoration, Absurdist, and innovative styles.  
**3 Class Hours**  
**Prerequisite:** THR 218 Role Study and Characterization or permission of instructor

**THR 231 Stage Directing I** **3 Credits**  
Examination of the perspective of the director in relation to himself, the play the actors, designers, playwright, and the collaborative evolution of the production. Development of directing methods and techniques in terms of casting, pictorial emphasis and harmony, rehearsal and production procedures. Preparation of prompt book and direction scenes. Proscenium and non-proscenium techniques.  
**3 Class Hours**

**THR 232 Stage Directing II** **3 Credits**  
Detailed analysis of directing in relation to theatrical styles and periods. Examination of the techniques of such directors as Meyerhold, Antoine, Guthrie and Kazan. Direction of pertinent scenes.  
**3 Class Hours**

**THR/COM 266 Acting for TV, Film, and Commercials** **3 Credits**  
Proficiency in performing before the camera. Character analysis, quick study, re-takes, voice-overs, studio projection, facial nuances, and subtlety of mannerism.  
**2 Class Hours, 2 Studio Hours**

**THR 299 Independent Study: Theater** **1-3 Credits**  
An individual student project concerned with advanced work in a specific area of theater. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course  
**Prerequisite:** 3 semester hours of college level work in theater

## TOOL AND DIE MAKING

Tool and Die Making Program is currently under revision. New course sequence will be issued as soon as it is approved.

## TRAVEL AND TOURISM

*TAE courses are also found under Hotel and Restaurant Management.*

**TAE 102 Travel and Tourism I** **3 Credits**  
Major tourist destinations of the world and their culture, attractions, language, currency and flag carriers. An introduction to the American Airlines SABRE system.  
**3 Class Hours**

**TAE 117 Travel and Tourism II** **3 Credits**  
The history and growth of tourism including the social, economic, political and future trends in the industry. Principles, philosophies and practices will also be examined as well as continued work on the SABRE system.  
**3 Class Hours**  
**Prerequisite:** TAE 102

**TAE 217 Travel and Tourism III** **3 Credits**  
A detailed analysis of major travel modes and travel facilities including air, rail, ship, hotels, motels and restaurants. Also included, will be an introduction to domestic and international ticketing. Students will learn to prepare the tickets both manually and on the SABRE system. Lessons on building a PNR will also continue.  
**3 Class Hours**  
**Prerequisite:** TAE 102

**TAE 291 Travel and Tourism IV** **3 Credits**  
An in depth look at how a business in the travel industry operates. Using the travel agency as a reference point, students will learn what is needed to open a business, how to manage it, and the proper office procedures to use. In addition, emphasis will be placed on using travel related reference materials, interviewing clients and selling travel services. Continued work on the SABRE system included.  
**3 Class Hours**  
**Prerequisite:** TAE 102, TAE 117 and TAE 217



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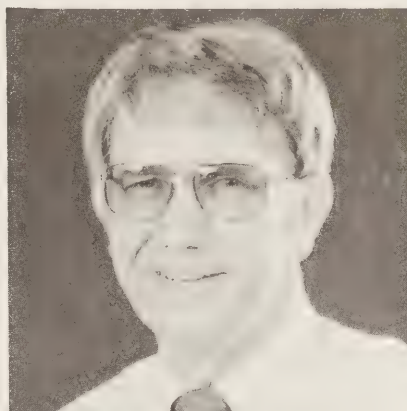
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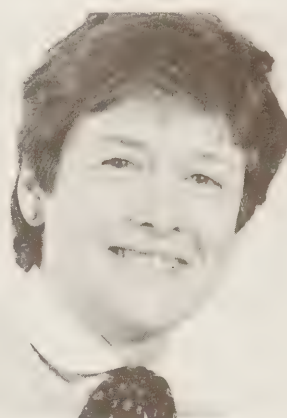
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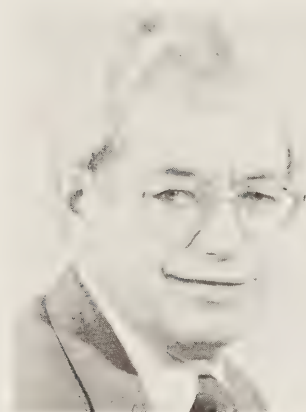
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M.A., SUNY at Binghamton

PH.D., SUNY at Binghamton

#### **CECIL C. TYRRELL LEARNING RESOURCES CENTER**

JAMES D. BAKER, Director

B.S., Ithaca College

M.S.L.S., Syracuse University

JANET K. POLAND, Asst. Librarian

A.A., Keystone Junior College

B.A., Lycoming College

M.L.S., SUNY at Albany

JANE M. RAWOOF, Asst. Librarian

B.A., George Washington

University

M.S.L.S., Catholic University

DEBORAH L. SPANFELNER, Asst.

Librarian

B.A., Nazareth College

M.A. SUNY at Binghamton

M.L.S. Syracuse University

SUZANNE G. SULLIVAN, Librarian

B.A., Nazerath College

M.S.L.S., Syracuse University



MARGARET A. WINGATE, Assoc.

Librarian

B.A., Boston University

M.L.S., SUNY at Albany

M.A., SUNY at Binghamton

#### **Emeritus**

JOAN FOLEY

#### **LIBERAL AND GENERAL STUDIES**

GEORGE HIGGINBOTTOM

Dean of the Division

A.B., Harvard University

M.A., San Francisco State

University

#### **Emeritus**

LLOYD W. HARTMAN

HAROLD W. HICKEY

#### **MATHEMATICS DEPARTMENT**

WILLIAM G. VICK, Chairperson

B.A., M.A., Colgate University

ANN CLEARY, Asst. Prof.

A.B., Marywood College

M.S.T., SUNY at Binghamton

THADDEUS CZUPRYNA, Prof.

B.A., SUNY at Binghamton

M.S., Cornell University

M.S., Syracuse University

DANIEL W. DODWAY, Prof.

B.S., St. Lawrence University

M.S., SUNY at Albany

PAUL J. EARL, Assoc. Prof.

B.S., Wilkes College

M.A., Rutgers University



**MORTON GOLDBERG, Prof.**  
 B.A., SUNY at Binghamton  
 M.A., SUNY at Buffalo

**CARMELITA KEYES, Assoc. Prof.**  
 B.A., University of Kansas  
 M.A.T., SUNY at Binghamton

**ELIZABETH KLIPSCH, Asst. Prof.**  
 B.S., University of Illinois  
 M.S., University of Illinois

**DAVID MICHALAK, Tech. Asst. II**  
 A.S., Broome Community College  
 B.S.M.E., Rochester Institute of Technology  
 M.A.T., SUNY at Binghamton

**JOSEPH F. MILENSKY, Prof.**  
 B.A., SUNY at Binghamton  
 M.A., University of New Mexico

**LUIS MORENO, Asst. Prof.**  
 B.S., Rensselaer Polytechnic Institute  
 M.S., SUNY at Albany

**PAUL O'HERON, Assoc. Prof.**  
 A.A., A.A.S., Monroe Community College  
 B.S., SUNY at Fredonia  
 M.S., Michigan State University

**RICHARD L. REMIZOWSKI, Assoc. Prof.**  
 A.A.S., Mohawk Valley Community College  
 B.A., SUNY at Oswego  
 M.A., SUNY at Buffalo

**CHARLES RICKER, Prof.**  
 B.A., Hartwick College  
 M.A., SUNY at Albany

**ROBERT WOODS, Asst. Prof.**  
 B.S., St. Bonaventure University  
 M.S., Elmira College

**Emeritus**  
**GORDON DATES**  
**IRVIN C. SIMSER**

## MECHANICAL ENGINEERING TECHNOLOGY

**WILLIAM G. KELLY, Chairperson**  
 A.A.S., Johnson Institute of Technology  
 B.S., SUNY College of Technology  
 M.S., SUNY at Oswego

**DIRK J. ELLIOTT, Instr.**  
 A.S., Broome Community College  
 B.S.M.E., Clarkson University  
 M.A.T., SUNY at Cortland

**BLAINE K. ELLIS, Prof.**  
 A.A.S., Broome Community College  
 B.M.E., M.S., Rochester Institute of Technology

**GARY MOTT, Asst. Prof.**  
 B.S.M.E., SUNY at Buffalo  
 M.S.A.S., SUNY at Binghamton

**FRANCIS P. PLUNKETT, Asst. Prof.**  
 B.S., Spring Garden College  
 M.S., Rochester Institute of Technology

## Emeritus

**MARION A. FORBES**  
**HERBERT L. DURST**  
**DOUGLAS RITTENHOUSE**

## MEDICAL ASSISTING

**TERESSA H. BURAN, Chairperson**  
 B.A., Alfred University  
 M.S.T., SUNY at Binghamton  
 C.M.A.-C

## Emeritus

**CLYDE CHAUNCEY**  
**MARY E. SCHUM**

## MEDICAL LABORATORY TECHNOLOGY

**JULIA E. PEACOCK, Chairperson**  
 B.S., Michigan State University  
 M.S., SUNY Upstate Medical Center

**MAXIMILLIAN D. BORSKI, Assoc. Prof.**  
 B.S., Southwest Missouri State College  
 M.S., University of Missouri

## MEDICAL RECORD TECHNOLOGY

**MARY ROSATO, Chairperson**  
 B.S., Mercy College  
 M.A., SUNY at Binghamton  
 R.R.A.

**JANE HLOPKO, Instr.**  
 A.A.S., Broome Community College  
 B.S., SUNY at Binghamton  
 M.A., SUNY at Binghamton  
 A.R.T.

## NURSING

**JANET WRIGHT, Chairperson, Assoc. Prof.**  
 B.S., M.S., Syracuse University

**BEVERLY CLARK, Asst. Prof.**  
 B.S., MS., SUNY at Binghamton

**FLORENCE EWANOW, Asst. Prof.**  
 B.S., Keuka College

**J. PATRICIA LEE, Assoc. Prof.**  
 B.S., Keuka College  
 M.S., Syracuse University

**CLAIRE LIGEIKIS, Asst. Prof.**  
 B.S., SUNY at Binghamton  
 M.S., SUNY at Binghamton



**BARBARA MARCKX, Asst. Prof.**  
 B.S.N., Georgetown University  
 M.S.N., University of Colorado

**MARY P. MORE, Assoc. Prof.**  
 B.S., Villanova University  
 M.S.N., Boston University

**JACQUELINE M. SHRADER, Assoc. Prof.**  
 B.S.N., Niagara University  
 M.S.N., Syracuse University

## OFFICE TECHNOLOGIES

**PATRICIA FRANKS, Acting Chairperson, Asst. Prof.**  
 B.S., Bloomsburg State  
 M.A.S.S., SUNY at Binghamton

**ELIZABETH B. ALTENHOFEN, Asst. Prof.**  
 B.S., Hartwick College

**JOAN BANDURCHIN—PIEROG, Assoc. Prof.**  
 A.A.S., Broome Community College  
 B.S., Kent State University  
 M.S., SUNY College of Technology

**MARIE DAVENPORT, Assoc. Prof.**  
 A.A.S., Broome Community College  
 B.S., M.S., SUNY at Albany

**EUGENE V. GIOVANNINI, B.Ed., M.Ed., Bloomsburg University**

**EVELYN A. KATUSAK, Prof.**  
 B.S., M.S., SUNY at Albany

**PATRICIA C. MULESKY, Tech. Asst.**  
 A.A.S., Broome Community College

**AGATINA VALLONE, Asst. Prof.**  
 A.A.S., Broome Community College  
 B.S., M.S., SUNY at Albany

**KATHLEEN WOOD, Tech. Asst.**  
 A.A.S., Broome Community College

**Emeritus**  
**DORATHY SAEGER**



## **PHYSICAL EDUCATION**

OZMUN G. WINTERS, Chairperson  
B.A., Syracuse University  
M.S., Ithaca College  
EDWIN C. DAUB, Assoc. Prof.  
B.S., M.S., SUNY at  
Cortland  
DUANE WHITTAKER, Asst. Prof.  
B.S., SUNY at Cortland

## **PHYSICS**

See Engineering Science and Physics

## **RADIOLOGIC TECHNOLOGY**

NANCY BUTTON, Chairperson  
R.T. Nesbitt Memorial Hospital  
School of Radiologic Technology  
B.A., Wilkes College  
M.S., Marywood College  
JANE DeMARIA, Asst. Prof.  
A.A.S., Broome Community  
College  
B.S., Medical College of  
Georgia  
M.A., SUNY at Binghamton  
BARBARA VALENTINO, Asst. Prof.  
A.A.S., Broome Community  
College  
B.P.S., SUNY Empire State  
College  
M.A., SUNY at Binghamton

## **REGISTRAR'S OFFICE**

JO VAN WELY, Registrar  
B.A., George Washington  
University  
M.S., Boston University  
ROSEMARY ZINNER, Asst.  
Registrar  
A.A.S., Broome Community  
College  
B.S., SUNY at Binghamton

## **SPECIAL CAREER PROGRAMS**

FRANCIS J. SHORT, Chairperson  
A.A., Broome Community College  
B.A., SUNY at Geneseo  
M.S., SUNY at Albany

## **STUDENT SUPPORT SERVICES PROGRAM**

BRUCE E. POMEROY, Director  
A.A., Broome Community College  
B.A., University of Iowa  
M.A., Bradley University  
CLAUDIA CLARKE, Counselor  
B.A., College of New Rochelle  
M.A., SUNY at Binghamton

## **ADJUNCT FACULTY**

The following taught or worked part-  
time at the College during the 1987-  
88 academic year:

## **AUDIO-VISUAL**

Konrad Bach, Media Technician

## **BIOLOGY**

Kenneth Munney  
Judith Sullivan  
Sandra Whittaker

## **BUSINESS**

Annamary Allen  
Donnamarie Battisti  
Raymond Coury  
William Condie  
Charles Ducar  
Ronald Finch  
Joseph Flanagan  
Elwood Forester  
Sally Gillespie  
Eugene Giovannini  
Gerald Hlopko  
Jerry Knebal  
Salvador Julian  
Thomas Ketrak  
Bob Lane  
Tom Lipa  
Jerry Loy  
William Maney  
John Monigan  
John Moses  
Edward Petras  
George Shea  
Karen Sherwood  
Harry Thor  
Lori Wahila  
Dennis Walker  
Jo Van Wely

## **CIVIL ENGINEERING TECHNOLOGY**

Richard J. Polizatto  
Donald Brown

## **COMPUTER STUDIES**

Jennifer Cepecla  
Sondra Foreman  
Richard Panko  
Sandra Wright

## **CRIMINAL JUSTICE**

Vincent Accardi  
C. Scott Bowen  
Louis Crosetto  
Paul DiNardo  
Kevin Dooley  
Richard Fitzpatrick  
Maria Santos  
James Shoemaker  
Stephen Vizvary  
Bradley Wahl  
Linda Williams

## **DENTAL HYGIENE**

Kathleen Case, R.D.H.  
Paula Fitch, R.D.H.  
Mary Orr Gaughn, R.D.H.  
Pamela Quinn, R.D.H.  
Carole Stanley, R.D.H.  
Kathleen Testa

## **DIETARY MANAGER**

Judith Komarinetz, R.D. Coordinator  
Kerrie Kobza, R.D.  
Marion McPheeters, R.D.  
Donald Shulman, R.D.

## **EARLY CHILDHOOD**

Marilyn J. Schafer, Coordinator  
Lois Blake  
Darlene Darrow  
Gwen Foster  
Carol Fuller  
Libbie Hobart  
Merry McNally  
Marion McPheeters  
Barbara Nilsen  
Barbara Reining  
Melissa Stuart  
Maryann Samsel  
Marcy Swartz  
Laurie Valenti

## **ELECTRICAL ENGINEERING TECHNOLOGY**

Michael Coppola  
William S. George  
David A. Green  
Salvator Pisciotta  
Edward F. Troicke

## **ENGINEERING SCIENCE AND PHYSICS**

Sanan Abderrahman  
Marilyn Akins  
Naomi Bloom  
Clare Gibbs  
Jim Little  
Joseph Macek  
Kurt Nelson  
Bruce Oldfield  
Theresa Sadeghi

## **ENGLISH**

Victoria Belenkaya  
Peter Christensen  
Anita Doll  
Michael Gee  
Helen Kolas  
Margeret LoGalbo  
David Maslar  
Donald Philips  
Madeline Robinson  
Gregory Saraceno

## **FIRE PROTECTION TECHNOLOGY**

Steven Andrew  
Michael Heide  
John Kratochvil  
James Ryan

## **HISTORY AND SOCIAL SCIENCES**

Corrine Crandell  
Carl Dassbach  
Lorenz Firsching  
Maribeth Palmer  
Robert Shields

## HUMANITIES

Richard Barons  
Dennis Curatolo



Martha Fenty  
Suzanne Geoghegan  
Lola Kaminsky  
Patrick O'Neil  
Helen Sacco  
Carole Stanley  
John Young

## LEARNING ASSISTANCE DEPARTMENT

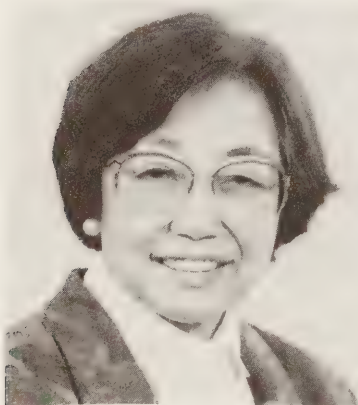
Karen Colpitts  
Donald Dunham  
Deborah Kratzer  
Pamela Mackey  
Kathy Ryder  
Alice White

## CECIL C. TYRRELL LEARNING RESOURCES CENTER

Ann Repasky

## MATHEMATICS

Thomas Boyuka  
Jane Colapietro  
Joan Dodway  
Nancy Eldred  
Georgiann Galant  
Michael Iannone  
Patricia Livermore  
John Nardocci  
Gayle Polka  
Melanie Streenstrup  
Mary Wolyniak



Ping Yen

## MECHANICAL ENGINEERING TECHNOLOGY

Laimons Drupa  
Louis Evangelisti  
David Hagerman  
Ronald Majka  
Irvin Simser  
Lowell Williams

## MEDICAL ASSISTING

Lynn Augenstern, B.S., M.A., C.M.A.  
Charlotte Holdrege, B.S., M.T.  
(ASCP)

## MEDICAL LABORATORY TECHNOLOGY

Sharon Sickles  
Sandra Whittaker

## NURSING

Marlene Benson  
Caroline Dimas  
Karin Euker  
Nada Kassiss  
Karen McMichael  
Eleanore Smith  
Roseann Sullivan

## OFFICE TECHNOLOGIES

Patricia Boyes  
Robert Lane  
Nancy Lehman  
Paula Napierala  
Margaret Turna

## PARALEGAL ASSISTANT

Matthew Vitanza, Coordinator  
Daniel Casella  
Rita Connerton  
Eileen Kane  
Nelson Migdal  
Beth Secaur  
Harvey Shapiro

## PHYSICAL EDUCATION

Cheryl Brozost  
Thomas Carter  
Roselle Illsley  
Nathaniel Jackson  
Nancy Kendrot

## RADIOLOGIC TECHNOLOGY

Dorothy Darrin, R.T. (R)  
Linda Dean, R.T. (R)  
Pamela Hoffman, R.T. (R)  
Elizabeth Pell, R.T. (R)  
Mardelle Vest, R.T. (R)

## TOOL AND DIE MAKING

Roy Taylor  
Vincent Taylor  
Richard Vlasak  
Gary Wiesing

## TRAVEL AND HOTEL TECHNOLOGY

Donnamarie Battisti  
John Bolles  
Sharon Dyer

Joseph Esworthy Jr.  
Judy Hess  
M. Peggy Saver  
Karen Sherwood

## CLINICAL AFFILIATE FACULTY

### MEDICAL ASSISTING

M. Ellen Donovan  
Kathy Frost, C.M.A.  
Bea Grace, R.N.  
Cynthia Kaufman, C.M.A.  
David Lashier  
Loretta Spinelli, C.M.A.  
Cynthia Tyler, L.P.N.  
Illa VanFleet  
Louise Williams

### MEDICAL LABORATORY TECHNOLOGY

Barbara Bagan, M.T. (ASCP)  
David Bonhoff, M.T. (ASCP)  
Jeannine Bonhoff, M.T. (ASCP)  
Bonnie Burton, M.T. (ASCP)  
Angela Carro, M.T. (ASCP)  
Stevn Collier, B. Sc., C. (ASCP)  
Garabed Fattal, M.D. (ASCP)  
Norman Frederick, M.T. (ASCP)  
Anne Gilfillian, M.T. (ASCP) S.H.  
Mary Greene, M.A., B.L.D. (ABB)  
Simon Hirschel, M.D.  
Joseph Hull, M.S., C.L.A. (NCA) H.  
Kenneth Hull, B.S.  
Alzina Johnson, M.T. (ASCP)  
James Lockwood, M.T. (ASCP) S.H.  
Irene Moon, M.T. (ASCP)  
Theresa Murphy, M.T. (ASCP)  
Linda Redmond, M.S., M.T. (ASCP)  
Linda Runne, B.S., M.L.T. (ASCP)  
Evelyn Thomas, B.S.  
William Trolia, M.B.A., M.T. (AMT),  
C.L.S. (NCA)  
Robert Tuggey, Ph.D.  
Lyla Vining-Wolford, M.T.  
(ASCP) SC  
Patricia Walsh, M.S., M.T. (ASCP)  
John Walters, B.S.  
Janis Williams, M.T., (ASCP) S.M.  
Lyla Wolford, M.T. (ASCP) S.C.  
Loren Wolsh, M.D.  
Lynn Woodward, M.T. (ASCP)

### MEDICAL RECORD TECHNOLOGY

V. Jane Casamento, A.R.T., B.S.  
Mary Casterline, A.R.T., A.A.S.  
Dorothy Erney, R.R.A., B.S.  
Tracy Farnham, A.R.T., A.A.S.  
Margaret Gallagher, A.R.T.  
Katherine Gehn, R.R.A., B.S.  
Cathy Komblatt, A.R.T., A.A.S.  
Lorraine Wheeler, A.R.T., A.A.S.



## ADMINISTRATIVE AFFAIRS

### HELEN VERES

Vice-President Administration  
A.S., College Misericordia  
M.S., SUNY at Cortland  
Ph.D., Cornell University

### BUDGET OFFICER

To be Announced

### CONTROLLER'S OFFICE

ALAN L. KATZ, CPA, Controller  
B.S., SUNY at Binghamton  
M.B.A., University of Chicago  
Graduate School of Business  
PEARL M. RANIERI  
Assistant Controller  
A.A.S., Broome Community  
College  
B.S. SUNY at Binghamton

### PHYSICAL PLANT

RALPH WALTER  
Assistant to Vice President  
for Administration

## STUDENT AFFAIRS

### JOHN J. PIEROG

Vice-President for Student Affairs  
B.S., M.Ed, Plymouth State  
College  
Ed.D., Nova University  
PAUL F. NOLAN  
Acting Assistant to the  
Vice President for  
Student Affairs  
B.A. St. Bonaventure Univ.  
M.A. Salisbury State College

### ADMISSIONS

ANTHONY S. FIORELLI, Director  
A.A.S., Broome Community  
College  
B.S., SUNY at Albany  
M.S., SUNY at Binghamton  
MARGUERITE PANKO  
A.A., Broome Community College  
B.A., SUNY at Binghamton  
MICHAEL CARRA  
B.A., SUNY at Binghamton

### ATHLETICS

ANTHONY QUAGLIATA, Director  
B.A., SUNY at Binghamton  
SUSAN ARMSTRONG, Acting  
Assistant Director  
B.S., SUNY at Cortland  
**Emeritus**  
RICHARD E.. BALDWIN

## COUNSELING AND STUDENT DEVELOPMENT CENTER

ALAN BENNETT, Assoc. Counselor,  
Acting Director

A.S., Dean Junior College  
B.S., M.Ed., Springfield College  
LYNN BALUNAS, Assoc. Counselor  
B.S., University of Vermont  
M.S., Syracuse University  
M.S.W., Marywood College  
JAMES GORMLEY, Asst. Counselor  
A.A., Newton Junior College  
B.A., Suffolk University  
M.A., SUNY at Binghamton  
MARY ELLEN HOGAN  
B.S., College of St. Rose  
M.A., Columbia University  
Ed.M., Columbia University  
JANET KUHN, Asst. Counselor  
B.A., Wilson College  
M.A., Marywood College  
MARY MCCARTHY, Asst.  
Counselor

A.A., Broome Community College  
B.A., SUNY at Cortland  
M.S., M.Ed.A., SUNY at Albany  
SUSAN OHRABLO  
A.A., Westchester Community  
College  
B.A., SUNY at Binghamton  
M.S., SUNY at Oneonta  
JOHN PAGURA, Asst. Counselor  
B.A., M.A., SUNY at Binghamton  
M.S.W., Marywood College

## COUNSELOR FOR DISABLED SERVICES

JAMES GORMLEY  
A.A., Newton Junior College  
B.A., Suffolk University  
M.A., SUNY at Binghamton



## EDUCATIONAL OPPORTUNITY PROGRAM

SYLVIA CAREY, Director  
B.S., SUNY at Oneonta  
M.A., SUNY at Binghamton

## FINANCIAL AID

DOUGLAS S. LUKASIK, Director  
B.A., Allegheny College  
M.Ed., Temple University

## HEALTH SERVICE

MARY LIGOURI, Acting Director  
P.N., Binghamton Practical  
Nursing School  
A.A.S., Broome Community  
College  
B.S.N., SUNY at Binghamton  
SHARON ZEMBECK  
R.N., Charles S. Wilson  
Hospital

## PUBLIC ASSISTANCE COMPREHENSIVE EMPLOYMENT (PACE)

BARBARA KANE LEWIS  
Director  
A.A.S., SUNY at Alfred  
B.A., Empire State College  
CARLA STURCHIO, Asst. Director  
B.A. SUNY at Binghamton  
M.A. SUNY at Binghamton  
BRENDA SERBONICH, Staff  
Asst. for Personal Life Planning  
A.S. SUNY at Farmingdale  
B.A. SUNY at Binghamton

## PLACEMENT

ANNE M. SCOTT, Director  
B.S., SUNY at Cortland  
M.P.S., University of Colorado  
LAWRENCE TRUILLO  
Staff Assistant  
A.A., Broome Community College  
B.A., SUNY at Oneonta  
M.S., University of Scranton

## STUDENT ACTIVITIES

To Be Announced  
**Emeritus**  
R. BRUCE MACGREGOR  
COLLEGE ENHANCEMENT

## COLLEGE ENHANCEMENT ALUMNI OFFICE

SUSAN R. LOBO, Director  
B.S., SUNY at Binghamton

## FACULTY STUDENT ASSOCIATION

GARY B. FINCH, Executive Director  
A.A.S., Broome Community  
College

## BOOK STORE

DANIEL D. DEVONA  
Campus Shop Manager  
B.F.A., Rochester Institute of  
Technology  
DONNA M. FIRENZE  
Textbook Manager

## BCC FOUNDATION

ROGER L. HARTMAN, Executive  
Director  
B.S., Bowling Green University  
M.S., Elmira College

## **CURRICULUM ADVISORY COMMITTEES**

The College's career-oriented curriculums have advisory committees to help maintain an awareness of the changing skill and training needs in the particular fields; establish communication among the college, the community, employers and educational representatives; and advise the College about career curriculums on a continuing basis. These advisory committees are comprised of a cross-section of people involved in each field. Following is the make-up of the respective advisory committees:

## **DIVISION OF BUSINESS AND OFFICE TECHNOLOGIES**

### **GENERAL BUSINESS**

EDWARD ANDREJKO

Binghamton Savings Bank

JOSEPH BALOK

General Electric

RONALD BARBER

Matco Electric Co.

DONALD BEHR

Great American Stores

FRANK BERRISH

IBM Credit Union

DAVID CAHILL

Prudential-Bache

FAYE CLAUS

Metrocenter

RUTH GDOVIN

Singer-Link Co.

EDWIN HOGG

Chase Lincoln First Bank

JOHN KANICK

Ketrack Insurance

JOANNE KOCAK

Tri-Cities Communication

ROBERT LINDSLEY

Security Mutual Life Insurance Co.

ANTHONY MAIONE

Vestal, N.Y.

RAYMOND McCORMACK

WBNG-TV

JAMES MC COY

Number 5 Restaurant

BRIAN MC MAHON

McMahon & Blum co.

SCOTT PAKEL

Raymond Corp.

VINCENT PASQUALE

State University of NY at

Binghamton

DENNIS WALKER

Lauder & Lauder

## **OFFICE TECHNOLOGIES**

EVELYN BERG

Singer-Link Co.

KATHY BROWN

Universal Instruments Corp.

ROBERTA BRUNDAGE

Oxford Gerontology Center

RUTH EPPS

WBNG-TV

RON KASCHAK

IBM-Endicott

REGINA W. MURPHY

NYSEG

ISABEL P. ROSSI

Staflings

BERNARD SETTA

General Electric

BENITA SICKLES

NYSEG

ELLEN SMITH

Chernin & Gold, attorneys

ANDREA TOTMAN

IBM Corp. in Owego

KAREN TREICHLER

Singer-Link Co.

## **TRAVEL AND TOURISM**

STEVE V. BRIAN

Deputy Commissioner of Aviation  
for Broome County

JUNE JAMES

Metro Travel Ltd.

SUSAN SMITH

Liberty Travel, Inc.

SHARON L. DYER

Don Travel/Ask Mr. Foster

VANESSA LAVIOLA

Broome County Travel Agency

## **HEALTH SCIENCES DIVISION**

### **DENTAL HYGIENE**

LARRY P. BLEIER, D.M.D.

Periodontist

BECKY DUNHAM, R.D.H.

ARLENE KONUITO R.D.H.

HARRIET MARMILLION, R.D.H.

SUZANNE O'BRIEN, R.D.H.

DAVID PAYNE, D.D.S.

Oral Surgeon

A.J. PERNA, D.D.S.

General Practice

LAWRENCE ROUFF, D.D.S.

Orthodontist

SHARON TIER, R.D.H.

J. MICHAEL WEBER, D.M.D.,  
M.S.D.

Periodontist

LINDA WHITE, R.D.H.

### **DIETARY MANAGER**

RAYMOND DENNISTON

Director of School Lunch

Susquehanna Valley Schools

JOSEPH GAY

Dean of Health Sciences

Broome Community College

KAREN HOJSIK, R.D.

Consulting Dietitian

GLORIA ROCKISAK, CDM

Binghamton General Hospital

JEANNE STRACUZZI, R.D.

Consulting Dietitian

Broome County Office for Aging

STUDENT, appointed annually

## **MEDICAL ASSISTING**

DR. BRUCE BOWLING

Medical Advisor

Endwell Primary Care Affiliates

LYNN AUGENSTERN, C.M.A.

Broome Community College

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ANGELA CARRO

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Medical Advisor

DAVETTE CUMMINGS, R.T.  
FRANK EMICK, R.T. (R)



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Our Lady of Lourdes Hospital  
Department of Radiology  
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Wilson Memorial Hospital  
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 Broome County Surrogate Court  
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 (Representing Business/Labor)  
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 Singer-Link Co.  
 (Representing Industry)  
 DINO SPAGNOLI  
 Personnel Manager  
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 (Representing Secondary Schools)



# STATE UNIVERSITY OF NEW YORK (SUNY)

JEROME B. KOMISAR, Acting Chancellor

Broome Community College is one of the 64 colleges that comprises the State University of New York (SUNY), which was established by the State Legislature in 1948. The 64 units include 30 locally-sponsored two-year community colleges like Broome.

The University's 64 geographically dispersed campuses bring educational opportunities within commuting distance of virtually all New York citizens. In academic 1986-87 more than 370,000 students enrolled in its classrooms or pursued study at home, at their own pace, through such innovative institutions as Empire State College, a campus without walls. Of the 370,000, about 30 percent are 24 years of age or older.

The University is uniquely organized into a system comprised of:

Four University centers, two medical centers, 12 colleges of arts and sciences, a non-residential college, four specialized colleges, five statutory colleges, six agricultural and technical colleges, and 30 locally-sponsored community colleges.

In addition to baccalaureate studies, 12 of the senior campuses offer graduate study at the doctoral level, and 22 at the master's level.

The two-year colleges offer associate degree opportunities in a wide range of technical areas. They also provide transfer programs for students wishing to continue to the baccalaureate degree. In the 1986-87 college year, the community colleges enrolled about 180,000. This number is about equally divided into full-time and part-time categories. Ten educational Opportunity Centers serve the educationally deprived by upgrading occupational skills for more gainful employment and identifying students with college potential to prepare them for enrollment in the state's public and private colleges.

State University is governed by a Board of Trustees, appointed by the Governor, which determines the policies to be followed by the 34 State-supported campuses. The 30 community colleges operate under the program of State University and have their own local boards of trustees. SUNY's motto is "To Learn-To Search-To Serve" which emphasizes the three-fold mission of education, research and public service.

State University awarded a degree to its one millionth graduate in the spring of 1985. The majority of them are pursuing their careers in communities across the state.

# COLLEGE OF THE STATE UNIVERSITY OF NEW YORK (SUNY)

## COMMUNITY COLLEGES

(Locally-sponsored, two-year colleges under the program of State University)

Adirondack Community College at Glens Falls  
Broome Community College at Binghamton  
Cayuga County Community College at Auburn  
Clinton Community College at Plattsburgh  
Columbia-Greene Community College at Hudson  
Community College of the Finger Lakes at Canandaigua  
Corning Community College at Corning  
Dutchess Community College at Poughkeepsie  
Erie Community College at Williamsville, Buffalo, and Orchard Park  
Fashion Institute of Technology at New York City  
Fulton-Montgomery Community College at Johnstown  
Genesee Community College at Batavia  
Herkimer County Community College at Herkimer  
Hudson Valley Community College at Troy  
Jamestown Community College at Jamestown  
Jefferson Community College at Watertown  
Mohawk Valley Community College at Utica  
Monroe Community College at Rochester  
Nassau Community College at Garden City  
Niagara County Community College at Sanborn  
North Country Community College at Saranac Lake  
Onondaga Community College at Syracuse  
Orange County Community College at Middletown  
Rockland Community College at Suffern  
Schenectady County Community College at Schenectady  
Suffolk County Community College Selden, Riverhead, and Brentwood  
Sullivan County Community College at Loch Sheldrake  
Tompkins Cortland Community College at Dryden  
Ulster County Community College at Stone Bridge  
Westchester Community College at Valhalla

\* The Health Sciences Centers at Buffalo and Stony Brook are operated under the administration of their respective University Centers

\*\* This is an upper-division institution authorized to offer baccalaureate and master's degree programs.

\*\*\* While authorized to offer such baccalaureate and master's degree programs as may be approved pursuant to the provisions of the Master Plan, in addition to the associate degree, the Fashion Institute of Technology is financed and administered in the manner provided for community colleges

\*\*\*\* These operate as "contract colleges" on the campus of independent universities.

# STATE-OPERATED COLLEGES

## UNIVERSITY CENTERS

State University of New York at Albany  
State University of New York at Binghamton  
State University of New York at Buffalo  
State University of New York at Stony Brook

## COLLEGE OF ARTS AND SCIENCE

Empire State College  
State University College at Brockport  
State University College at Buffalo  
State University College at Cortland  
State University of New York Empire State College  
State University College at Fredonia  
State University College at Geneseo  
State University College at New Paltz  
State University College at Old Westbury  
State University College at Oneonta  
State University College at Oswego  
State University College at Plattsburgh  
State University College at Potsdam  
State University College at Purchase

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Health Sciences Center at Syracuse  
College of Optometry at New York City  
(Health Sciences Center at Buffalo) \*  
(Health Sciences Center at Stony Brook) \*

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State University of New York College of Technology at Canton  
State University of New York College of Agriculture and Technology at Cobleskill  
State University of New York College of Technology at Delhi  
State University of New York College of Technology at Farmingdale  
State University of New York College of Agriculture and Technology at Morrisville  
State University of New York College of Technology at Utica/Rome\*\*  
(Upper Division and master's programs)

## SPECIALIZED COLLEGES

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State University of New York Maritime College at Fort Schuyler

## STATUTORY COLLEGES\*\*\*\*

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New York State College College of Ceramics at Alfred University  
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New York State College School of Industrial and Labor Relations at Cornell University  
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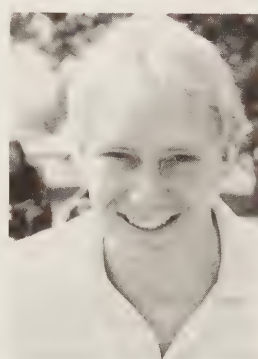
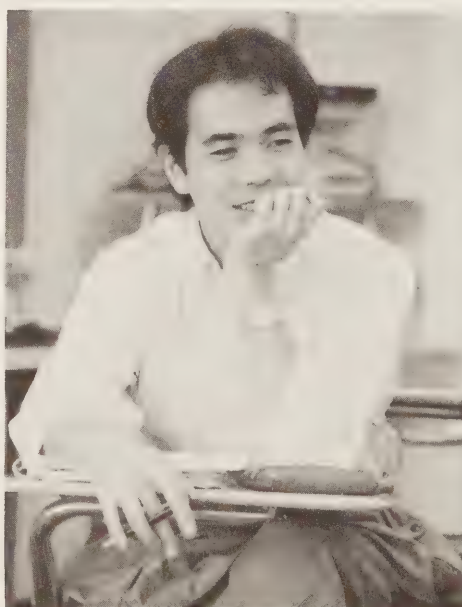
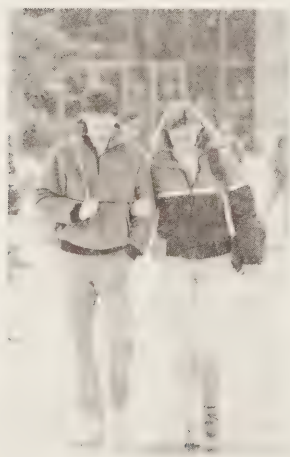
## 1988 - 1989 ACADEMIC YEAR

### Fall

Registration.....	August 22 - 25
Classes Start.....	August 29
Last Day for 100% Refund.....	September 2
Labor Day (College Closed).....	September 5
Last Day for 50% Refund.....	September 9
Last Day to Withdraw from a course with no Grade (25% Refund) .....	September 23
Mid-Semester Break .....	October 10, 11
Last Day to Withdraw from a course with a "W" Grade .....	November 9
Thanksgiving Break.....	November 23 - 27
Last Day of Classes.....	December 19
Reading/Study Day.....	December 20
Final Exams .....	December 21-23
Final Grades Due.....	December 28

### Spring

Martin Luther King, Jr. Day (College Closed) .....	January 16
Registration.....	January 17 - 20
Classes Start.....	January 23
Last Day for 100% Refund.....	January 27
Last Day for 50% Refund.....	February 3
Last Day to Withdraw from a course with no Grade (25% Refund) .....	February 17
Mid-Semester Break .....	February 20 - 21
Spring Break.....	March 27 - April 2
Last Day to Withdraw from a course with a "W" Grade .....	April 11
Last Day of Classes.....	May 16
Reading/Study Day.....	May 17
Final Exams .....	May 18-20, 22
Final Grades Due.....	May 25
Graduation.....	May 26





# APPROVED CALENDAR

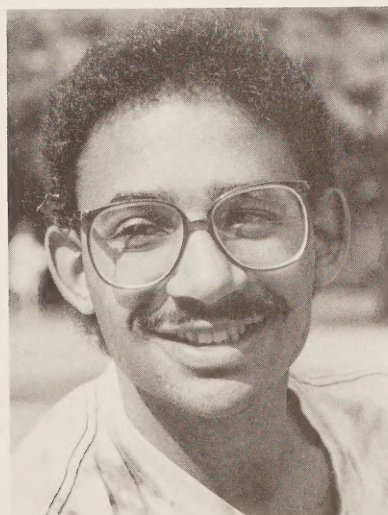
## 1989 - 1990 ACADEMIC YEAR

### Fall

Registration.....	August 21 - 24
Classes Start.....	August 28
Last Day for 100% Refund.....	September 1
Labor Day (College Closed).....	September 4
Last Day for 50% Refund.....	September 8
Last Day to Withdraw from a course with no Grade (25% Refund).....	September 22
Mid-Semester Break .....	October 9, 10
Last Day to Withdraw from a course with a "W" Grade .....	November 8
Thanksgiving Break .....	November 22 - 26
Last Day of Classes.....	December 18
Reading/Study Day.....	December 19
Final Exams .....	December 20-23
Final Grades Due.....	December 27

### Spring

Martin Luther King, Jr. Day (College Closed) .....	January 15
Registration.....	January 16 - 19
Classes Start.....	January 22
Last Day for 100% Refund.....	January 26
Last Day for 50% Refund.....	February 2
Last Day to Withdraw from a course with no Grade (25% Refund).....	February 16
Mid-Semester Break .....	March 5, 6
Last Day to Withdraw from a course with a "W" Grade .....	April 3
Spring Break.....	April 9 - 15
Last Day of Classes.....	May 15
Reading/Study Day.....	May 16
Final Exams .....	May 17-19, 21
Final Grades Due.....	May 24
Graduation.....	May 25



# NOTES

1. The first part of the paper discusses the importance of the study of the history of the United States. It is pointed out that the study of history is not only a means of understanding the past, but also a means of understanding the present and the future. The author argues that the study of history is essential for the development of a nation and for the well-being of its people.

2. The second part of the paper discusses the role of the government in the development of the United States. It is pointed out that the government has played a major role in the development of the country, and that its actions have shaped the course of history. The author argues that the government should continue to play a role in the development of the country, and that its actions should be guided by the principles of justice and fairness.

3. The third part of the paper discusses the role of the individual in the development of the United States. It is pointed out that the actions of individuals have shaped the course of history, and that the individual has a responsibility to contribute to the development of the country. The author argues that the individual should be encouraged to exercise his or her rights and responsibilities, and that the government should protect these rights and responsibilities.

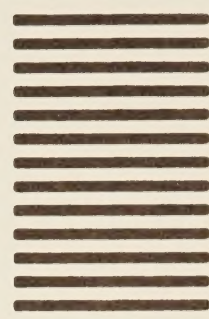
4. The fourth part of the paper discusses the role of the future in the development of the United States. It is pointed out that the future is uncertain, and that the actions of the present will shape the future. The author argues that the future should be planned for, and that the actions of the present should be guided by the principles of justice and fairness.







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